

A Comprehensive Outline of World History

Jack E. Maxfield



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A Comprehensive Outline of World History (Organized by Region)

By:

Jack E. Maxfield

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The Pacific: A.D. 1401 to 1500

The Pacific: A.D. 1501 to 1600

The Pacific: A.D. 1601 to 1700

The Pacific: A.D. 1701 to 1800

The Pacific: A.D. 1801 to 1900

BIBLIOGRAPHY

Foreword

“A Comprehensive Outline of World History” was written and self-published by Dr. Jack E. Maxfield.

The structure of the work is innovative. Each chapter covers a period of historical time (e.g. a century). Sections within chapters describe what was going on in every geographical region of the world; each section provides a reference for that region in the subsequent chapter, i.e. in the next time period. The reader can thus get a snapshot of the entire world at a point in time by reading one chapter, or can follow the history of a region through time by linking to sections in successive chapters.

This modular, linked structure is ideally suited to web-based online implementation, especially to the Connexions platform. I am pleased to make this content available on Connexions for the enjoyment and enlightenment of everyone with an interest in the history of our world.

*Robert Maxfield
October 2008*

More Details on the Origin of this Material

My father, Dr. Jack Eldred Maxfield, was an orthopedic surgeon with a deep interest in history. He self-published three editions of “A Comprehensive Outline of World History.” The 1959 first edition consisted of 200 pages with 8 references in the bibliography, and included a unique time-line, hand-drawn and hand-colored by him, showing the rise and fall of civilizations. An original and six carbon copies were typed from his hand-written manuscript. He put these copies into binders and presented them to me and my friends as high-school graduation gifts.

The second, hardbound edition, published about 1975, was a

single volume of 474 pages, 47 bibliographical references, and numerous hand-drawn, hand-colored maps. I do not know how many copies were printed.

The third edition, typed by my father on an electronic typewriter and published in 1984, consisted of three hardbound volumes totaling 1303 pages and 322 bibliographic references. Well over one hundred copies, in batches of 20, were eventually published as demand grew. The following letter was included with each set he gave away:

Dear friends:

These three volumes are in no way to be considered a formal publication. They simply represent the end result of some 25 years of reading, writing and re-writing historical material arranged in a chronological way to suit my own fancy and for the use of my family if they so desired. I am happy now to include a few friends who have expressed an interest.

Before using this manuscript for reference or even for casual reading, I would suggest that you first peruse the pages numbered with Roman numerals in Volume I. They give the general plan of the outline and suggest its purposes as well as defining some of its limitations. Please excuse any remaining typographical and/or spelling errors and I am sure there are many.

*Best regards,
Jack E. Maxfield*

Jack Maxfield died on September 14, 2006, at age 93. The original 1984 typed manuscript of "A Comprehensive Outline of World History" was found on a shelf in his closet. In 2007, a special print edition was published for his grandchildren, future generations of our family, and for special friends. Thanks to the World Wide Web and Connexions it is now available to everyone.

Foreword to this Derivative Version

by Infogrid Pacific

About this derivative version

Jack E. Maxfield's amazing work *A Comprehensive Outline of World History*, has generously been made available under a Creative Commons license. The topic based nature of this is an ideal content source to illustrate multi-format, remixable content from a valuable, well referenced book or content source.

We had multiple objectives behind deciding to produce this book into multiple digital formats:

1. It is a valuable reference resource and deserves to be widely available for educational purposes of all types in as many possible formats as possible.
2. The topic based nature of the structure makes it ideal for demonstrating content remixing which actually delivers useful results from a single work.
3. It's a large book in terms of word count and structure (number of sections or topics), and has the ability to stretch e-book devices to the limit.
4. There are sufficient linking references to make the reading navigation experience interesting, and again, push e-book devices to their limit.
5. The maps contain sufficient detail to be valuable.
6. The styling is conventional and does not require a lot of treatment or customization.

Remixing the book

The book has been comprehensively retagged into *IGP:FoundationXHTML* using *IGP:Digital Publisher*. The original HTML pages were imported into *IGP:Digital Publisher* using the manuscript import feature. This converted the HTML to XHTML automatically. Once the XML has been created and is available in *IGP:Digital Publisher* the content is ready for action in a number of ways.

The book is available in multiple formats.

There you can see this book as a Print PDF, and in various e-book formats. All of these are produced with one click from the *IGP:Digital PublisherFormats On Demand* processor. Most importantly we have created several variants using different combinations of the content.

1. The entire book using the original structure map is available as 6in x 9in academic style, and A4 manual style PDFs.
2. The same content is available as an e-pub and a mobipocket file. Please take note of the file sizes before deciding to download it onto your preferred device.
3. There are two remixed versions which combine objects horizontally through the content at 5000-8000 B.C. and the 19th century. These are also available in the same format combinations above.
4. There is one vertical remixed version covering Africa available in the same format combinations.

How this version differs from the Connexions online version

The core content remains substantially intact. There has been limited editorial changes made as explained below to make the book relevant for a remixable topic based content approach.

Map References

Map references have been editorialized to remove page position indicators. For example: The positional references "map on the opposite page", has been changed to Map 2.3, or whatever the appropriate numbered references.

Internal navigation

Because the purpose was to turn each topic into a self-contained, remixable object, all internal navigation references such as forward and back have been removed. This left the issue of how to resolve internal inter-topic links. Because we have tried to create a stand-alone topic based reference work, inter-section links have been left as unlinked references in this edition.

For e-book devices with limited processing power and memory it is appropriate to limit, or even prevent inter-section links as much as possible to improve navigation performance. This is even more important where there are a large number of links.

Map positioning

Maps have been positioned for Online and e-book presentation in proximity to their reference in text following the rule, "where possible a figure or map must follow its first reference in text". Maps are floated page-top or page-top-next in the PDF output editions.

Additional Notes

Additional notes have been treated as footnotes. This allows them to remain in their context, creates an easy to reference print book, and footnotes are processed to return section end-notes automatically for e-books. Notes and footnotes all have return links processed in automatically by the *IGP:Digital Publisher Formats On Demand* processor.

References

Reference processing was particularly difficult. We wanted to create all sections as self-contained objects, so references for a section were accumulated in a References section at the end of each topic. References have been renumbered linearly within each section which means they lose their original context. We felt it was appropriate for the original context to be maintained, so original reference numbers are included in brackets after the newly generated linear number thus [243] and have a direct external link

to the connexions site. These numbers have an XML element on them which allows them to be hidden for any particular format using CSS selectors.

Infogrid Pacific is pleased to make all variant formats of this book available for anyone to reuse anywhere for any purpose within the terms of the Creative Commons license.

I would like to give a special thank you to our Demonstration Production Editor *Milan Bishwakarma* for his tireless efforts in producing this edition. It was a labour of love spanning many months of his spare and own time.

Lastly we would like to acknowledge the work of Jack E. Maxfield and his family for their generosity in contributing this life-hobby-work to the greater good of mankind.

Richard Pipe
CEO Infogrid Pacific
May 2010

Introduction

My friends ask why I should undertake to write a World History. Aren't there already enough such books in the English language? Of course. There are dozens, perhaps scores of them, each with a particular purpose, or scope, or bias and each with some limitations. The very excellent *The Outline of History* by H.G. Wells was published some sixty plus years ago and lacks much of the information gained from recent archeology and other sciences. It devotes only about two pages to the Aztec and Inca empires and only an occasional sentence about Central and South America, otherwise. Sub-Saharan Africa is scarcely mentioned except in regard to the slave trade. The Durants' multi-volume work, *The Story of Civilization* is a beautifully written narrative which, however, gets bogged down in its later volumes with tiring details of long ago politics, royal genealogies and religious and philosophical dialogues. Unfortunately, as with other texts, it also has some inaccuracies. The more scholarly *A Study of History* is a somewhat mystical interpretation of Arnold Toynbee's personal ideas of history, not in any sense a chronological narration of happenings. If the reader is not already well versed in the essential landmarks of the world's factual history, understanding is of ten difficult. The same might be said of the more recent Hugh Thomas' *A History of the World*, which has no suggestion of continuity from the standpoint of dates, but discusses one facet of man's endeavors at a time, jumping freely from 1,000 B.C. to A.D. 1,800 and back again, assuming that the reader already knows the prosaic historical facts to appreciate these rapid changes of scenes. Again, inaccuracies are present, some of which are mentioned later in the text. While the usual high school history books have been cut of most of the gore, tragedy and even obscenities of the old world, some of the college and adult texts such as *The Columbia History of the World* and William McNeill's several texts are excellent, but they

still do not reach the far corners of the earth in some of the centuries. The *An Encyclopedia of World History*, compiled and edited by William L. Langer, is an excellent documentation of world history - ancient, medieval and modern, chronologically arranged and this has been referred to many times during the writing of this manuscript, particularly for confirmation of dates, dynasties, clarification of names, etc. It is not a book for leisurely reading and enjoyment, however, and is essentially a list of year dates with short, concise material after each, purely for reference. Similar, but less useful, is James Trager's very recent *The Peoples Chronology*, a series of completely unrelated and miscellaneous "facts" (some are gross errors) listed by years. It is difficult to see the value of this except perhaps as a parlor game of "What things happened in the world at large in some specific year?" This manuscript has one purpose only - to give a panoramic picture of the entire globe from the arctic to deepest Africa and the south Pacific in specific time-frames. The emphasis is to give the overall view of the world and its peoples, without dwelling in too much depth on those features that are easily available in every school and municipal library and in many homes. I refer to such subjects as the details of classical Greece and Rome, the American Colonies and the various wars and specific battles. For example, in this text less space may be given the American Revolutionary and Civil wars than the pre-Inca civilizations of South America or the life of the Mongol soldiers in central Asia. Information on the former subjects is available everywhere, while that on the latter two subjects is limited.

The Mechanics of and Some Problems of the Presentation

Material is arranged in one sense chronologically and in another sense geographically so that the reader may review historical situations either in a "satellite" cross-sectional view of the entire world in one time-frame, or may follow events in any one geographical area through the many centuries in more or less brief narrative form by following the simple (Continued on page so and so) after each section. An attempt has been made to give a brief resume of the political status, important philosophies, scientific developments and religious trends while devoting proportionately more time to a description of the status of the common people of an area at any given moment. Hopefully most of the world's outstanding personalities in all fields have been given some space, but it is admitted that many aspects of art, literature, music and architecture may, in some opinions, be slighted, as these are not the major fields of the author's interests.

The textual data is presented in multiple chapters, each representing a definite period of time. The earlier chapters span several millennia each, but beginning with the 7th century B.C. each chapter contains the events of one century only. Within each chapter or time-frame in addition to some general remarks pertinent to the period as a whole, the world situation will be discussed under eight main headings or sections, representing eight great areas of the globe. These areas and their subdivisions have been somewhat arbitrarily chosen, but seem to lend themselves satisfactorily to an orderly consideration of the various societies and civilizations. One cannot prevent certain over-lappings and certain difficulties with such a plan due to the changing political boundary lines from century to century. As one example it will be remembered that the Great Wall of China ended at Jiayuguan in the

west, marking the border of traditional China, and beyond this on westward lies Central Asia. Yet today much of this land to the west belongs to the present Chinese Peoples Republic, even though the inhabitants are still chiefly Turkish and Mongolian peoples. So, in spite of the political shift certain areas currently under the domain of China, such as Sinkiang-Uighur (present spelling Xinjiang Uygur) and Tibet, will be considered in this manuscript under the heading of CENTRAL AND NORTHERN ASIA. Manchuria is considered an entity in itself, as part of the Far East complex.

Another matter which may annoy or confuse the reader as he progresses through the text is the spelling variations. One must realize that language is a spoken phenomenon and that what we call "written language" is really only a notation system that attempts to recall the spoken words to the observer. Thus when anyone attempts to write down a notation that seems to him to record a spoken foreign word his rendition will depend on his own language background and phonetics. The result may be only a rough approximation at best, and the spelling will vary greatly with the nationality of the translator. One of the most fascinating examples of this would be in the spelling variations for the great Mongol leader whose name has been variously written as "Jenghis Khan", "Chingis Khan", "Genghis Khan", "Chinggis Khan" and perhaps others. The Mongols as a group have been named "Khalkas", "Tatars", "Tartars", "Cumans", "Kipchaks", or "Poloritse" depending on the writer, his nationality and the location of the particular Mongol tribe at the moment. It is well known that the English often use a "k" where Americans use "c" as in such words as "Keltic"-"Celtic" and "Khosru"-"Chosroes", etc. Although this author has attempted to be as consistent as possible there are probably many exceptions for which apology is asked.

There is still another source of confusion concerning names. When the first names of the monarchs of medieval and later Europe are all Anglicized we get an amazing succession of Charles, Henrys, Johns, Williams, etc. In one world history index I counted about sixty-five rulers named Charles. In this manuscript in so far as possible the monarchs' names will be given in their own language so that differentiation may be aided. Thus in the Scandinavian and Germanic countries Charles will be Karl and William will be Wilhelm. Similarly the French Henrys will be Henris and the Portugese John will be the native Joao while Peter will be rendered

as Pedro. Other examples will be apparent.

But that is not all! The Chinese emperors present special problems in nomenclature, as all Chinese have traditionally had several kinds of personal names, and special names were often added according to interests or achievements. Posthumous names were often given prominent individuals also to further complicate the situation. The old rulers of China were seldom referred to by their personal names but rather by the epithets of ancestral temple ceremonies, including the terms "tsu" (grandfather), "tsung" (clansman or ancestor) or "ti" (emperor). Founders of dynasties are commonly designated "Kao-tsu" (exalted grandfather) or "T'ai-tsu" (grand progenitor). In addition the emperors of the Ming and Ch'ing dynasties commonly coined era names indicating what they hoped the future would bring and subsequently they might be called by their era-name. One trouble is that some changed era-names several times during their reigns. Hucker gives the example: "Ming T'ai-tsu began his reign in traditional fashion with the era-name Hung-wu (swelling military power) -- 'the Hung-wu' emperor is a technically correct alternative way of referring to Ming T'ai-tsu."¹ But one does not correctly say that his name was Hung-wu!

One last warning. As this edition is being written almost all the Chinese cities and places are being spelled anew, in an attempt to come closer to the true phonetic rendition of the Chinese words. Since at the moment this only seems to add to the confusion and since it will be some years before most maps and texts will change to the new format, the old system of spelling will be followed in this manuscript. Peking will still be "Peking" and not "Beijing".

This text will occasionally also have special sections on selected subjects or appropriate summaries of certain eras. Terminology with reference to dates will be the traditional "B.C." referring to either years or centuries before the birth of Christ, and "A.D." for a specific year after Christ. The latter abbreviation, of course, is for *Anno Domini*, meaning "in the year of our Lord" and is therefore not properly used to refer to a *century*.

Thus, for those centuries after the birth of Christ we shall use the designation "C.E.", indicating the "Christian Era". Footnotes will be indicated by number on each page, as demonstrated on this one. References to the bibliography will be by number in the form (Ref. [2](#), [3](#)) and usually will be grouped at the end of paragraphs or sections to minimize confusion during the reading of the text. Some

"additional notes" will be found at the end of the text, beginning on page 1181. Triple asterisks - *** - in the text proper indicate that these additional notes are appropriate to that paragraph. In some instances the page number is listed with the asterisks, but otherwise the notes are easily found under the proper time-frame and then the geographical division, just as in the main outline.

1

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2

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1. Hucker (Ref. 1), page 288n

Africa

Geographical Presentation of Africa

Africa is a tremendous continent, measuring nearly 5,000 miles from north to south and the same from the western edge at 20° north latitude to the eastern "horn". It comprises over 20% of the earth's land surface. Throughout the manuscript we shall discuss Africa under the subdivisions listed below.

NORTHEAST AFRICA

This area includes present day Egypt, Sudan, Ethiopia and Somalia. It has about 2,000,000 square miles and is a region where Hamitic and Semitic Caucasoids have met and merged with Negroid stock. Many of the Negroids seem different than other black Africans and some authorities believe them to be a separate race, as for example – the Masai. (Ref. 1). In ancient times part of Ethiopia (Abyssinia) was known as Axum, while portions of the Sudan have been known as Kush and Nubia. The Nile River runs through all of these countries with the exception of Somalia.

NORTH CENTRAL AND NORTHWEST

This area includes present day Libya, Tunisia, Algeria, Morocco and a large part of the Sahara Desert. Overall there are nearly 3,000,000 square miles and the majority of the present population is descendant from the original inhabitants, as no invader ever brought many individuals to the area. Even the great Arab waves of the 7th and 8th centuries probably involved less than 200,000 people. The Berbers are a Caucasoid type, but with much physical variation from tribe to tribe. They inhabit most of the coastal region, much of the mountainous country and the oases. The basic

population of the Sahara proper, particularly its more southern portions, was and is today basically Negroid, some native and some descended from slaves. (Ref. 2).

SUB-SAHARAN AFRICA

This area extends from far west Africa across the Sudanic plain as far east as the Lake Chad environs, then down to the equatorial district as well as central, east and south Africa and the major islands. This very large spread of land has many and varied peoples and cultures, but historical material is still relatively meager for most of it and from the standpoint of manuscript space, it seems best to consider it under one section.



Map 1.1: Africa

Press, Ann Arbor, 1970).

2

[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

Africa: Beginning to 8000 B.C.

AFRICA

Before the Ice Age, in the Pliocene Era, there were ape-like hominoids using weapons to kill prey in Africa. It is in the anthropological digs in Tanganyika's Olduvai Gorge that one finds the possible origin of man a million or more years ago. Some cutting tools there are dated at 3,000,000 B.C. Human habitation in Egypt goes back at least 200,000 years and there are stone tools in Zambia dating to 700,000 to 500,000 B.C. About 110,000 years ago there was a major change in world climate (probably from eccentricity in the earth's orbit) which gave rise to the Ice Age in northern latitudes and to marked precipitation changes, both of distribution and amount, on the African continent. *Homo erectus* disappeared and *Homo sapiens*, with middle Stone Age tool technology, appeared. Those men in Africa were similar or identical to Neanderthal man in Europe and Asia.

About 20,000 B.C. during the Magdalenian period, there was a hunting culture in North Africa similar to that of Spain and France, and the people left remarkable rock engravings of wild, large animals in some areas. Later post-ice age (Mesolithic) paintings had lost the naturalism of earlier ones and may have been chiefly remembered symbolism within the tribes, after the large animals had disappeared. Aterian bow and arrow makers in Maighreb and Stillbay in Magosian settlements in south and east Africa are dated to 185000 B.C. At that time there was a land bridge from near the horn of Africa to the Arabian Peninsula. The large game animals - mastodons and mammoths began to disappear from Africa some 50,000 to 40,000 years ago and the number of human hunters probably decreased secondarily. Rock art has been found dating back to 25,000 B.C. in Namibia; to 11,000 B.C. in southern Morocco;

and to 7,000 B.C. in Cape Province, South Africa. The first known Negro skeleton comes from Iwo Ileru in Nigeria and dates to about 9,000 B.C.

Stone artifacts show the same radio-carbon dating. Flint blades, adapted from ancient weapons, were used near the Nile for reaping wild wheat by 12,000 B.C. (Ref. [1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#), [9](#), [10](#)) [1](#)

[1](#)

(Ref. [11](#)) Emmanuel Anati (Ref. [12](#)) dates the Namibia rock art to about the same period as given in the text (26,000 to 28,000 years Before Present) and describes polychrome painted slabs with animal figurines

[1](#)

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[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

[3](#)

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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12

[299] ANATI, EMMANUEL, "Saving the World's Rock Art", *Archaeology* 36, No.2: 24-30, Mar./Apr. 1983.

Africa: 8000 to 5000 B.C.

AFRICA

About 7,000 B.C. a two-man plough was used in Egypt, one man ahead pulling on a rope and the other pressing down the point. (Ref. 1) It is assumed that hunters and pastoral peoples lived in great parts of Africa, particularly the north and east at this time, but there is little or no evidence of their culture except in the Sahara, itself. Some of the Tassili pastoral rock paintings of that area may date back to 6,000 B.C. During the climatic optimum from about 7,000 to 3,000 B.C. the Sahara was bush country, well stocked with game. It well could have been a zone of human interbreeding of races, in that today there are a number of Saharan and Sudanese tribes which appear to be intermediate between Caucasoids and African Negroes. Mediterranean dark-white Hamitic Caucasoids appear to have come from Asia, bringing Cushitic languages about 8,000 B.C. and spreading south along the Rift Valley of Africa to settle by the lakes in Kenya. They were fishermen, using stone instruments and making pottery. (Ref. 2) But to return to the area of the Sahara, certainly before 6,000 B.C. this was a region of lush valleys, wooded hills and fertile rolling plains, and the rock drawings of this early period suggest that the people were like the present day Bushmen, now found only in the South African desert. But with the disappearance of the big game, particularly the buffalo, these people were apparently replaced by herdsmen from the east, perhaps the ancestors of the present day nomadic Fulani peoples (Ref. 3, 4) Elsewhere in Africa from about 6,000 B.C. on, some groups living near lakes or rivers adopted a more settled way of life, using bone harpoons for fishing. Remains of these have been found near Lake Chad, Lake Edward and Khartoum on the Nile. (Ref. 5)

1

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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Africa: 5000 to 3000 B.C.

NORTHEAST AFRICA

In this period there were Cushitic speaking Hamitic people along the Red Sea and the Gulf of Aden on the coastline of the horn of Africa. In Egypt, sometime between 4,500 and 3,100 B.C. the Badarian Culture existed, with agriculture, irrigation, clearing of jungles and swamps and pictographic writing, which may have been imported from Sumeria. These Badarians may have come from south of Egypt via the Red Sea and Wadi Hammarat, but it is possible that immigrants from Jericho also arrived, bringing food-producing techniques. The overall population of the lower Nile was probably less than 20,000 at 5,000 B.C. (Ref. 1) The climate was cold and damp and the people wore kilts or long skirts made of linen or skins with the fur inward. They lived in some type of tents or perishable wall homes.

Hippopotami and crocodiles were in evidence, and in the area of el Badari there are bodies of dogs, sheep and oxen wrapped in matting or linen. This suggests possible reverence for these animals. Lower Egypt had domestic grazing animals from the Levant by about 4,500 B.C., but the Badarians lived primarily in middle Egypt and their pottery dates to the second half of the 5th millennium by thermoluminescence. That they had outside contacts is evidenced by ivory spoons, shells from the Red Sea and turquoise beads from the Sinai. Recent finds of a vast number of reed ships, many with masts and sails have been made in the long dried-up wadi between the Nile and the Red Sea which may well date back to this period. The Egyptians are basically Hamitic, but may well have added mixtures of Nubian, Ethiopian and Libyan natives, coming from the Sahara as it slowly dried, along with immigrant Semitic or Armenoid tribes. Cattle were used as beasts of burden perhaps by

4,000 B.C. The sail was used from about 3,500 B.C. on, and pottery dating to 3,100 bears paintings of sickle-shaped sailing vessels, apparently built with reeds and complete with cabins and centerboards. Egypt was first united as the "Old Kingdom" under Menes¹, who, as king of Upper Egypt, subdued Lower Egypt and united the two with a new capital established at what was later called Memphis. Although Egypt had no copper or tin, it did have gold and there were fabulous goldsmiths in Memphis (actually a clan of dwarfs) from the early days of the United Kingdom. (Ref. 2, 3, 4, 5, 6)

1

A. Hoffman of the University of South Carolina (Ref. 9) writes of the factors allowing the development of the "first nation", under Narmer (Menes). At Hierakonopolis, in Upper Egypt, about 3800 B.C., there was slight seasonal rainfall, wooded grasslands, fertile flood plains and easy access to the Nile. There were two settlements in the area with mud-brick and wattle-and-daub houses spread over a 100 acre area and having perhaps as many as 10,000 people. This is called the Amratian period (also Naqada I) and excavations have produced maceheads, as symbols of central authority. A huge pottery industry was present, making Red Ware pottery which was traded up and down the Nile. Some was used in the elaborate burials which were part of the Egyptians' religious beliefs. Just after 3500 B.C., however, with the area becoming more arid, potteries were abandoned and the Amratian period came to an end, as people moved into more thickly settled villages along the wetter Nile flood plain, initiating the Gerzean or Naqada II period, which lasted until 3100 B.C. An elite class in the new villages built temples, palaces, larger tombs and possibly an irrigation system, rendering the flood plain able to produce bigger and more reliable harvests. But the water management and excess grain storage problems demanded more central control. Various kings fought for dominance and finally it was Narmer, who succeeded in political unification of the entire Egyptian Nile valley

NORTH CENTRAL AND NORTHWEST AFRICA

A Neolithic Hamitic culture was present in Algeria and Morocco with agricultural settlements and pottery by 5,000 B.C. The Sahara was quite wet from 7,000 to 2,000 B.C. and the many lakes reached

their maximum extent about 3,500 B.C. when Lake Chad covered some 200,000 square miles. It is now the only remaining lake with 15,000 square miles of water. The rivers of the Sahara ran inland so that alluvial material gradually filled up the inland basins, blocking and slowing the streams. In the fierce sun that followed the changing climate, the water evaporated and the marshes dried out. Salt deposits are still worked at such places as Amador, Teghaza and Taoudenni which are simply old inland basins. The people of the wet Sahara were Negroid and they raised domesticated cattle and left beautiful works of art on rocks with some figures as high as twenty-six feet. Elephants, antelope, water animals and fish were abundant. The Negroid people of this era were not the Bushmanoid, round-headed people pictured on the rock drawings before 6,000 B.C. (Ref. 10, 11)

SUBSAHARAN AFRICA

At 4,000 B.C. there were two languages of the western Sudan family - Yoruba and Idoma - but they were already very different and had apparently been diverging for several thousand years. (Ref. 12) In tropical Africa there were probably scattered bands of peoples whose descendants are the pygmies of the Zaire forests and Bushmen of the Kalahari Desert. The first true Negroes probably lived as fishermen along the Nile and the Niger rivers and the savannah north and west of the forest about 4,000 B.C. (Ref. 13, 14)

1

[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

2

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1. Menes is now considered to be one and the same with the legendary King Narmer of Hieraconopolis, so eulogized by Professor Toynbee. (Ref. 7, 8)1

Africa: 3000 to 1500 B.C.

NORTHEAST AFRICA

Out on the horn of Africa, men in Somalia were producing frank incense and myrrh for sale to Egypt as early as 3,000 B.C. The Cushitic-speaking people continued expansion south of Egypt and into Nubia. Due to the change in the Sahara climate, more Negro and Sudanic people settled just west of the Cushites (also Kushites), increasing the population there (Ref. 1)¹

1

Egypt of the Middle Kingdom had to deal with these Nubians and did so with forts at Senna, some 270 kilometers north of Kerma. The city itself was an extensive urban development, particularly after 2000 B.C. The large tombs of "royalty" contained animal sacrifices and some of them even had up to 400 human sacrificed retainers. The Nubian culture spread over central and northern Sudan. This particular culture of Kerma almost completely disappeared after colonization of the area by the pharaohs of the XVIII Dynasty of Egypt. (Ref. 2) After 1,520 the New Kingdom of Egypt used Nubian gold to hire charioteers as a professional force. (Ref. 3)

A map of Egypt of this period may be found in the early pages of the next chapter. The exact dating of the various dynasties and eras of ancient Egypt continue to be debated.

NOTE: Insert Map taken from Reference 97 (page 61)

The dates used in this manuscript are those given by Professor Easton in *The Heritage of the Past* (Ref. 4) and these are fairly well coordinated with those used in *The Columbia History of the World* (Ref. 5) and other recent publications. The first stone constructed sepulchre of pyramidal design was built at Saqqara, near Memphis, during the reign of Zoser (also Djoser), an early king of the 3rd

dynasty, between 2,700 and 2,630 B.C. This was called the "Step Pyramid" and was actually the creation of Imhotep, chief minister of the king, a man who was later deified. Recent desert studies would suggest that this step pyramid and the larger ones to follow were actually shaped after nature's own desert, wind-swept dunes of the western desert. Sand-stone and solid rock mountains and dunes all seem to have naturally assumed a conical shape, as the winds spiral about them to exhaust their energy at the pointed top. It is very possible that the man-made structures were modeled after these natural ones, and it is said that a rocky knoll of unknown size underlies the Great Pyramid and that there is a natural stone out-cropping at the tomb of Queen Khent-Kawes. It is thus suggested that the ancients not only simply enlarged and refined already existing natural conical structures, but that the very nature of these shapes have allowed them to withstand the winds and sand storms of all the ages since they were built¹. Still more intriguing is the finding in the desert of forms very much like the sphinx, indicating that where constantly directed winds hit certain geological formations an unusual shape somewhat like that of a reclining dog with raised head, is formed.

Can the sphinx simply be a dressed-up natural formation of this type? Similar shapes have been found in the desert as far back as 1909 (Ref. 7, 8) and there are suggestions of the same phenomenon in parts of Utah today. Copper mines were developed in the Sinai by Pharaoh Snefu, a successor of Zoser. He also used large ships to increase sea trade (Ref. 9).

Bronze was in use in Egypt by 3,000 B.C. and the great pyramids were started about 2,600 B.C. in the time of Cheops of the 4th dynasty². Because of the fertility of the Nile flood basins in this 3rd millennium, the average peasant produced three times as much food as his family needed and thus he was capable of feeding the flood control workers and the builders of public buildings and Pharaoh's tombs. The first wooden boats were made in exact imitation of the old reed boats. An entire such vessel of Cheops', dating to 2,700 B.C., has recently been excavated from his pyramid. It has a length of 143 feet and appears more graceful than a later Viking ship, but could only have been used for ceremonies on the smooth Nile, as it had no internal ribs and could not have survived ocean sailing. Only the papyrus ships from which it was copied could withstand the ocean waves.

All subsequent rulers of the Old Kingdom built great pyramids such as that of Cheops and these edifices had great religious significance. There is no doubt that great numbers of slaves were used in their construction, and they were obtained chiefly from Nubia and some of these were even exported on to Iraq. Toynbee (Ref. [11](#)) feels that the 4th dynasty (2,600 to 2,500 B.C.) represents the height of Egyptian Society culture and growth. The population at that time was probably about three million, or more (Ref. [12](#)). Disintegration of the society or "time of troubles", according to Toynbee, began in the 6th dynasty (2,300 to 2,200 B.C.) and for four centuries there was no central control but only small feudal states ruled by provincial governors, the "nomarcha", who levied taxes and kept small armies. Kings did exist, but in name only. About 2,000 B.C. Amenemhet I, a Thebian nomarch, marched down the Nile and established the 12th dynasty as a central ruling government, beginning the "Middle Kingdom" of Egyptian history. Toynbee considers this the "Universal State" of the degenerating Egyptian Society, in which the sins of the pyramid builders were visited on their successors, but Professor Cheilik (Ref. [13](#)) describes this as a period of increasing trade and contacts with other countries, in spite of some political deterioration. When a mummy of Wah, an official of this Thebes Dynasty, was unwrapped at the Metropolitan Museum of Art in New York they estimated that about 365 square meters of linen had been used. This craft of mummification had been developed over a long period and all the technique is still not known. Certainly the first step was removal of the internal organs of the deceased, sometimes by an abdominal incision, sometimes by a corrosive agent introduced in an enema. The second step was dessication with the use of natron, either dry or in solution. Finally the body was anointed with balms and ointments and the extensive bandaging began. All of this was simply to preserve the body as an eternal repository for the soul. (Ref. [14](#))

The port of Byblos on the Phoenician coast was a large emporium for Egyptian products and Egyptian wares were wanted in Crete and Mesopotamia. With the conquest of Nubia a large supply of gold was obtained and a high point of prosperity was reached under Senusert (also Sesostri) III (1,878-1,840 B.C.). Egypt had a population at that time of seven to eight million (Ref. [15](#), [16](#), [17](#), [18](#), [19](#), [20](#), [21](#), [22](#)).

The Middle Kingdom ended with about two hundred years of

turmoil and disputes for the throne, until 1,680 B.C. when the nomad Semitics called "Hyksos" (probably Canaanites) invaded from the Arabian area. These invaders brought the domesticated horse with chariot warfare and men using composite bows and were thus invincible at that time. They made their capital in the Nile delta at Avaris and their overlords called themselves "pharaohs". Previous to the advent of the Hyksos' horses the Egyptians had used only the donkey as a beast of burden but the invaders did not penetrate the country far from the Nile delta, and the Egyptians considered themselves a distinct and separate people and did not easily accept strangers or new ideas so they refused to adopt either the horse-drawn chariot or the composite bow. The population as a whole was thus not greatly influenced (Ref. [23](#))

About 1,567 B.C. another Thebian king, Kamose, started a war of liberation from upper Egypt and recovered most of the territory from the invader Semites. The job was completed by his brother, Amosis I, a few years later. The Hyksos movement probably presented the final upheaval in the Amorite series of expansions that will be discussed under the section on the NEAR EAST, below. It was probably at the time of this Semitic domination that the Biblical Joseph moved into Egypt (Ref. [24](#), [25](#), [26](#), [27](#))

The bow-drill was used in Egypt from 2,500 B.C. on and rules of measurement, the plumb-line, construction of a right angle and the shaping of stones with a mason's square were all features of this society. Ahmes calculated the area of a circle about 1,600 B.C. and Ptah-Hotep was a great philosopher of the 3rd millennium B.C. The Middle Kingdom was also a period of fine craftsmanship. A beer called *haq* was commonly drunk and was made from red barley of the Nile valley. Bread was supposedly also first made here in the dynastic period because of the development of a new kind of wheat which could be threshed without the application of heat. The ass, of African origin, was first used for regular trade between Egypt and Iraq sometime after 2,000 B.C.

Our knowledge of Egyptian medicine (except for commentaries from Greek and Roman writers) comes from seven medical papyruses discovered in the last century. The oldest of these, the fragmentary Kahun Papyrus, deals with veterinary medicine and women's diseases. The next, dating to about the 17th century B.C., is concerned with surgical matters beginning at the top of the head and working down to the mid-chest. The longest of the papers, the

George Ebers Papyrus, dates to about the 16th century B.C. and is an extensive therapeutic text written a millennium before Hippocrates and containing prescriptions dating back to 3,700 B.C. It was probably a copy of older documents. This papyrus, twelve inches wide, unwinds to a length of sixty-six feet. Egyptians rather routinely removed all internal organs after death, saving them in special containers as the body proper was mummified, but they knew very little about the functions of these organs. Although they paid much attention to cleanliness, having almost a national fetish of keeping the gastro-intestinal tract clean with multiple purges, emetics and enemas of every conceivable kind, disease was still rampant. Mummies show evidence of tuberculosis of the spine with accompanying spinal deformities and cold abscesses, club foot, polio and measles, not to mention the undoubted parasitic infestations they must have obtained, and still do, from the Nile. Eye diseases, particularly trachoma, leading to blindness, were and are still common in Egypt. It responds some to copper preparations and it is interesting that Egyptian women wore green eye make-up, probably made from copper salts. In general, treatment was a mixture of religio-magical gestures and the use of an extensive pharmacopoeia and some limited surgical procedures such as cauterization, circumcision and occasional trepanning of the skull, if indeed, this was actually a medical procedure. Dentistry was advanced with prosthesis construction as early as 2,600 B.C. Egyptian physicians had good reputations throughout the ancient world and at home. There was apparently a definite medical hierarchy, beginning at the top with the Pharaoh's physician. Special training schools for physicians were attached to temples (Ref. [28](#), [29](#), [30](#), [31](#)).

NORTH CENTRAL AND NORTHWEST AFRICA

The Hamitic Berbers had a well established Neolithic Culture in a large area along the coast of North Africa, but they had no copper. They were probably descendants of the ancient Mediterranean peoples and related to the Iberians and Basques. There were two major subgroups:

- The nomadic **Tauregs** of the desert who maintained strict

hereditary classes, with an ancient alphabet and using artistic trappings on their camels and jewelry on themselves, and

- The **Kabyles**, particularly of Algeria, living as a settled tribe, long famous for pottery made without the use of the wheel. (Ref. [32](#), [33](#))

Dessication of the Sahara set in about 3,000 to 2,500 B.C., causing some pastoralists to move into the jungles of the Nile Valley and others to move south with the rains. This shift to arid conditions in the Sahara may have stimulated the emergence of civilization in Egypt. By 2,000 B.C., as reflected in the Sahara rock drawings, rhinoceroses, hippopotamuses and giraffes had already vanished from this area. Southward expansion of cereal-growing occurred during the 2nd millennium B.C. as millet and sorghum were domesticated as tropical crops (Ref. [34](#), [35](#), [36](#))

SUBSAHARAN AFRICA

The southern shift of the cereal-growing belt, due to the change in the Sahara climate, resulted in an increase of the Negro populations. (Ref. [37](#))

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1. The conical shapes of primitive shelters from the American Indian tepees to African and Arabian Desert tents and Mongolian and Kazak yurts in central Asia may all resist the winds in the same way (Ref. 6)
2. Thomas (Ref. 10, page 32) dates the Great Pyramid at 2,900 B.C. and comments on its exactly squared base, the 50 degree slope of all surfaces and the fact that the stones are so well fitted together that a blade cannot be inserted between them

Africa: 1500 to 1000 B.C.

NORTHEAST AFRICA

The story of Northeast Africa in this period is essentially that of Egypt with little change occurring in the adjacent regions, except for Cush or (Kush). After the overthrow of the foreign Hyksos rulers local control was resumed within the establishment of the New Kingdom of the Egyptian Empire, with the great pharaoh, Thutmose III, taking over part of the coast of the Near East and bringing Egypt in contact with other cultures. He even took an interest in Asiatic flora and fauna and brought specimens home. Extensive commercial ties resulted in imports of Cretan wares, Syrian amphorae and African gold, ebony, ivory, hides and exotic animals. At about 1,500 B.C. the Egyptians had pushed south to become the masters of Kush, "to protect their security" and incidentally to obtain gold. The Kushites, who may have descended from C-group Caucasoids, became increasingly Egyptianized. (Ref. 1) The greatest geographical expansion, however, was reached under Amenhotep III, about 1,390 B.C. This ruler had his likeness constructed in two colossal statues across the Nile from Luxor, by transporting huge pieces of quartzite some four hundred miles from a quarry downstream on the Nile. Recent scientific research, identifying the rock, would indicate that the transport had to have been accomplished on a specially built lighter drawn upstream by oars and gangs of draggers on the banks. About a century earlier such a great barge was engraved on the walls of the temple of Queen Hatshepsut at Deir-el-Bahri. (Ref. 2, 3)

NOTE: Insert Illustration (page 103)

Amenhotep IV allowed some political decline, but, changing his name to Akhnaton (or Ikhnaton) he attempted to force a new, strictly monotheistic religion on the Egyptian people, but the new faith did not last long. Tutenkhamon ruled in 1,355 and Rameses II, who exhausted his resources in wars against the Hittites and then married an Hittite princess, ruled about 1,250 B.C. He built the first Suez Canal, a task not too difficult then, as the sea was higher than at present. A victory inscription of Pharaoh Merneptah (about 1,224-1,214 B.C.) mentions the Hebrews, and this may have been when Moses led the Hebrews back to Palestine. After 1,165 Egypt lost all territory beyond the Nile valley itself. In the early part of this period under the Ramessid kings of the XX dynasty, the dominant religion had returned to the worship of the Sun God Re and Amon, but gradually the Osirian church began to take over among the majority of the people. This involved the worship of the God Osiris and his sister-wife, the nature Goddess Isis and their infant son, Horus. The mysteries of this religion, including the death and resurrection of Osiris and the interpretation of Isis as the "Mother of God" spread throughout the Near East in the next many centuries, and eventually served at one time as both a model and a rival for Christianity, persisting well up to the 6th century C.E. However, at about 1,100 B.C. the high priest of Amon took over the throne and the empire became a stagnant theocracy. Even Kush was able to regain its independence. Invasions of "Sea peoples" - mixed armies of Cretans and Luvians, perhaps - probably contributed to Egyptian decline. Ref. (28, 46, 38, 8, 224)

The glory of Egyptian science was medicine. Public sanitation was promoted and all were circumcised and taught to use enemas as cleansing procedures. They used glass, linen, paper and ink, the calendar and waterclock, geometry and an alphabet. The empire had a peaceful, internal government with a regular census and post, both primary and secondary education for some and technical training schools for administrators. Wheeled vehicles were common, and they utilized bronze and such tools as blacksmith bellows. The Nile valley lacked iron ores so the Egyptians were limited in the use of the new military technology that appeared in adjacent regions late in this period. In dynastic Egypt the basic diet of the peasant consisted of bread, beer and onions, the first being a flat bread called "ta", but nobles and priests could choose from some forty types of breads and pastries.

Chickens were available and later the Nile marshes supplied eel, mullet, carp and perch, and some of these fishes, dried and salted, were exported to Syria and Palestine. (Ref. [5](#), [6](#))

NORTH CENTRAL AND NORTHWEST AFRICA

Neolithic Berbers continued to live in North Africa. The population of Libya was added to by Anatolian Sea People, perhaps Cretans and/or Luvians, who attacked Egypt about 1,400 B.C. and then colonized Libya. Many of these invaders were later employed in the Egyptian navy. Herodotus, Pliny and other ancient writers, described a people called "Garamantes" who lived in present day Fezzan (375 miles northeast of Timbuktu) and who traveled in two-wheeled chariots drawn by horses. Rock engravings in this area have confirmed this. Were they part of the Sea Peoples? Some say the Tauregs are their descendants. Definitely among the Sea People were Shardana (or Sherden) who carried round shields, broad swords and who wore feathered war-bonnets. Phoenician immigrants settled in Morocco about 1,100 B.C. and these areas later became part of the Carthaginian Empire.

This was confirmed by the Greek historian, Procopius, who wrote that this Phoenician migration came at the time of King David's Hebrew wars. (Ref. [7](#), [8](#), [9](#), [10](#))

The Canary Islands in the Atlantic just off the coast of northwest Africa were inhabited before the known arrival of Europeans by the Guanche, who were a mixed Caucasoid and Negroid people, varying somewhat from island to island, with blond and bearded men living next to dark-skinned, clearly Negroid individuals. This has been confirmed both by early descriptions and by mummies found on the islands. The "Canary Current" is a strong, westward flowing Atlantic ocean current going straight from these Canary Islands to the Caribbean Sea and the base of the Yucatan peninsula. It is of great interest that the Olmecs, living at the western end of this Canary current in America at this era, were identical physically with those Guanche of the Canaries. The distance from these islands to Middle America is equal to that from Asia Minor to the islands, but the former trip is infinitely faster and simpler on anything, such as a reed-boat or even a raft. (Ref. [11](#))

SUBSAHARAN AFRICA

Negro farmers inhabited the Sudanic belt and their population continued to increase as fruits, vegetables and cereals were cultivated in the forest zone. Ghana, in west Africa, had domestic cattle and goats by 1,500 B.C. There was also pottery, stone axes, shale arm-rings and fine stone points, whose use is unknown. In southern Mauretania, on the southern fringe of the Sahara, excavations at Dar Tichitt have revealed the so-called Naghes phase, dated from 1,200 to 1,000 B.C. and showing circular compounds with evidence of cattle and goat herding, fishing and some hunting. The people had stone axes, arrowheads, gouges, and pottery. In central and southern Africa nomadic black Bushmen lived in the Stone Age. (Ref. [12](#), [13](#))

By 1,000 B.C. additional Caucasoid groups called "Azanians" brought cattle and cereals to join the previously settled dark whites in the Kenya highland and adjoining northern Tanzania. They left stone burial chambers, hut circles, terraced fields, roads and traces of irrigation. By tradition the Azanians were tall, bearded and red-skinned. In later centuries these people were absorbed by the Nilo-Hamites and the Bantu Negroids. (Ref. [14](#))

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1. The pedestal blocks with each statue made a total weight of 720 metric tons each (Ref. 4)

Africa: 1000 to 700 B.C.

AFRICA

NORTHEAST AFRICA

At the beginning of the last millennium B.C. Kush (or Nubia) was an area of fertile grassland, although now it is desert. Prosperity then in the area depended on exports of ivory, ebony, gum, hides, ostrich plumes and slaves. The northern Nubians were dark-skinned but probably of Asian origin, while farther south around present day Khartoum, there were Negroes. Ethiopia began to be colonized by Semites from Sheba in Yemen in the 10th century B.C. Ethiopian legend says that their country was founded by Menelik, eldest son of Solomon and the Queen of Sheba. In the 8th century B.C. Kush was strong enough to conquer Egypt, perhaps with the help of those Ethiopians, and they established the XXV dynasty in 725 B.C. (Ref. 1)

In Egypt the post-empire period of the New Kingdom lasted from 1,090 intermittently until 525 B.C. The internal decay of the theocracy was soon followed, as is common in history, by invasion and dominance by foreign powers. About 950 B.C. Shishonq, chief of the Shardana tribe of the Sea People who had faded into the Libyan desert some two centuries earlier, revolted against the Egyptian monarch and installed himself as pharaoh in the city of Bubastis, establishing the Libyan Dynasty, ruling both Egypt and Libya. Egypt then became a maritime power, exporting alabaster vases with various seals to Spain. The name "Shishonq" has also been found on some American inscriptions, although the relationship is not clear at this time. As mentioned above, the Libyans were followed in 722 B.C. by the Kushites (and perhaps some Ethiopians) coming from the south. No cultural advance occurred in Egypt in those troubled times. (Ref. 2, 3, 4).

NORTH CENTRAL AND NORTHWEST AFRICA

While the Libyans were in control of Egypt their influence and language spread far and wide, even to the Indo-Pacific region where the Egyptians had long mined gold (particularly Sumatra). Fell (Ref. 5) says the Libyan language spread with Greek influences into Melanesia. In the Mediterranean after 813 B.C. there were coastline colonies of Phoenicia, notably the growing Carthage, located in the Bay of Tunis near the modern city of Tunis. Archaeologists, however, have found nothing at Carthage that can be dated before 735 B.C. Like the parent Phoenicia, Carthage also manufactured a purple cloth by a secret dyeing process utilizing the pigment from a sea snail, called "Murex", and the Greeks named the traders who sold this, "Phoinikoi" or "The Purple People". The Romans then called them "Punici" and later the word "Punic" came to refer exclusively to the Carthaginians.

In Mauretania this period saw a decrease in rainfall and fishing was no longer possible, but millet was cultivated in the fields. This was the Chebka phase of the Dar Tichitt Culture. By 1,000 B.C. a new, Hamitic speaking people from the north, ancestors of present day Berbers, had established themselves in the Sahara region, with chariots, horses, goats and cattle. (Ref. 6, 7, 8, 9)

SUBSAHARAN AFRICA

Most of southern Africa remained much as in the previous centuries. Sometime in this 1st millennium B.C. a break in the forest belt in the east allowed Stone Age farmers, herdsmen and perhaps cereal growers to spread down the Rift valley from Ethiopia into central Kenya and northern Tanganyika. (Ref. 10)

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[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

Africa: 700 to 601 B.C.

AFRICA

NORTHEAST AFRICA

Overpopulation in Yemen, on the Arabian Peninsula, forced bands of Arabs to cross the Red Sea and settle on the northeastern edge of the Ethiopian plateau. They were good farmers and irrigators and got along well with the local Cushitic speaking people who had a similar degree of culture. (Ref. 1) There is some evidence that Phoenicians, with the Egyptian pharaoh's support, were making sailing trips south out of the Red Sea at this time, and perhaps they even circumnavigated Africa.

Early in the century, the Assyrians under General Esarhaddon, then at the height of his power, swept down and subjected priest-ridden Egypt to tribute and restricted the kings of the 25th (Kushite) dynasty to the country upriver from Thebes. Esarhaddon put Necho, local prince of Sais, in control of the delta region, but subsequently Necho's son, Psammeticus I broke away from the Assyrians and re-established an independent Egyptian kingdom again (26th dynasty-655 B.C.) and even pushed the Nubians and Kushites out of upper Egypt. The chief contribution of the Assyrians to this region was the introduction of iron, which soon spread up the Nile, as the Kushites, retiring back to their capital at Napata, took the knowledge of iron for weapons and tools with them. (Ref. 2, 3, 4, 5, 6)

In mid-century there were many Greek immigrants to Egypt, including mercenaries, colonists and traders. New crops were introduced such as figs from Turkey, vines from Greece, sheep from Arabia and pigs from Sicily. Currency replaced barter and caravan routes were developed. Slave labor was used in mines and quarries. After 609 B.C. Pharaoh Necho (also Niku II) attempted to run a

wide canal from the Nile to the Red Sea and expended the lives of some 120,000 men in the process, but it was never completed. Necho also had an army conquer Palestine, but the Babylonians ran them out after about four years. (Ref. 7)

NORTH CENTRAL AND NORTHWEST AFRICA

Cyrene, Libya, was the site of an important Spartan Greek colony by about 630 B.C. Carthage had continued to develop and had iron-working in its various settlements, a skill which then crossed the desert through trans-Saharan trade routes. It was at this period that the Assyrians were attacking the Phoenician homeland, and Carthage became increasingly more important as a center for that civilization. Gradually the Carthaginian or Punic dialect and alphabet came to differ from that of the Lebanese Phoenicians. By the end of the century Carthage was receiving Etruscan metals and pottery. Some of the latter was of truly Italian origin and some imitations of Corinthian ceramics. (Ref. 8, 9, 10)

SUBSAHARAN AFRICA

On the west side of Africa there was further climatic deterioration after 700 B.C. The spread of people down the Rift Valley into east Africa continued and both cattle and sheep were kept. The central and southern regions had little change from the situation described in the last chapter.

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[75] GRANT, MICHAEL, The Etruscans. (Chas. Scribner's Sons, New York, 1980).

Africa: 600 to 501 B.C.

AFRICA

NORTHEAST AFRICA

As the century opened Egypt was again attempting expansion into Asia under native rulers and a punitive expedition was sent south to sack the Kushite Napota (591 B.C.) forcing the movement of this Kushite capital south to Meroe. Another view, however, is that the Kushite rulers simply elected to move their capital 300 miles south because wood for smelting iron ore was becoming scarcer and the land was being overgrazed. At any rate, Meroe then became a major iron center. Kush had a mixed Caucasian and Negro population and thereafter remained independent of the various Egyptian rulers. The nation owed its prosperity to trade in ivory, ebony, gum, hides, ostrich plumes, iron and slaves, all of which were carried either down the Nile to Egypt or across the Red Sea to Arabia and Mesopotamia. They also had great herds of cattle and adequate agriculture¹.

Egypt maintained close commercial relations with both the Greeks and Lydians. In the latter part of the century, the Egyptians were pushed back out of the Asiatic mainland again by the rampaging Persians, and by 525 B.C. half of Egypt itself had been conquered by the Persian Cambyses, son of Cyrus. After Cambyses committed suicide in 521 B.C., Darius continued to rule most of this area. (Ref. [2](#), [3](#), [4](#), [5](#))

NORTH CENTRAL AND NORTHWEST AFRICA

By this time Carthage had developed an empire of its own, with settlements in western Sicily and Sardinia and with contacts in Spain and along the African coast. In 520 B.C. Admiral Hanno

landed 30,000 settlers from 60 vessels at the mouth of the Rio de Oro in what is now Western Sahara. The colony lasted about fifty years. (Ref. 6) Herodotus says that Phoenicians circumnavigated Africa in 600 B.C., starting in the Red Sea and going clockwise. Himilco, sailing from Carthage, touched the shore of Ireland and found it a fertile land. All of this exploration and expansion brought some troubles closer to home. Although they had previously been trading partners, the competition between the Etruscan Caere and Carthage now became so acute that conflict became inevitable. Malchus, of Carthage, consolidated the Punic position in western Sicily and then tried to do the same in Sardinia, although the native Sardinian states fought back viciously and they were soon helped by the maritime Phocaeen Greeks. Caere threw in its lot with Carthage on this occasion. Herodotus, writing in the next century, said that the Phocaeans² won but in so doing lost forty ships and had another twenty severely damaged. They returned to Alalia, got their women and children and resettled in Rhegium in south Italy, leaving Corsica also to the Carthaginians and Caeritans. In 509 B.C. Carthage signed a treaty with the rising Rome, defining respective spheres of influence. (Ref. 7)

Barry Fell (Ref. 9) infers that after the Persian conquest of Egypt and the rise of the Greek and Roman empires, the eastern Mediterranean was closed to Carthaginian shipping, so Carthage retaliated by closing the straits of Gibraltar to all European vessels. Then under the guise of supposed Spanish and north African trade, they exploited North American silver, copper, hides and furs, bringing them back for the manufacture of bronze and the marketing of the furs. He feels that this secrecy is the reason Roman annals have no mention of the trans-Atlantic voyages. To date no one has come forth with any direct confirmation of this hypothesis.

SUBSAHARAN AFRICA

That part of Africa south of the Sahara and the Abyssinian massif was one of the five great remaining reservoirs of savage or barbarian life. The other four areas were the monsoon forests of Southeast Asia with the islands of Indonesia, the steppe and forest zones of northern Eurasia, Australia and finally the Americas. (Ref. 10)

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[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

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[139] MCNEILL, WILLIAM H., The Rise of the West. (The University of Chicago Press, 1963).

1. Today this area of ancient Kush is almost completely desert. (Ref. 1)
2. Herodotus described the Phocaeans as plunderers and looters. (Ref. 8, Book 1, pp. 89, 90)

Africa: 500 to 401 B.C.

AFRICA

NORTHEAST AFRICA

Perhaps as early as this century the art of iron smelting was imported into Sudan from Egypt via Kush, which had become an immensely rich country. The early inhabitants of Axum on the Ethiopian plateau south of Kush were probably of mixed Asian and Negro origin, and they were joined about 500 B.C. by settlers from southern Arabia, some of whom were apparently Jews. An Ethiopian-Jewish community, as well as a later Christian one, has existed in Ethiopia¹ up to the present time. From those contacts arose the legend that the Queen of Sheba bore a son by Solomon, who became emperor of Ethiopia and founded the Solomaic Dynasty. (The Queen of Sheba, of course, lived in the 10th century B.C.)

Egypt continued to be ruled by the Persians, with no advance in their own civilization except that their economic isolation was eliminated and they did complete the Nile-Red Sea canal which had been begun by Necho. Apparently the original Egyptian cotton was a poor product and linen from flax dominated Egyptian clothing. (Ref. 3) The Egyptian science of previous centuries began to be picked up by Greeks who had colonies at Naucrates on the Nile delta, with others along the coast towards Libya. All of this was further developed in the subsequent Hellenic Culture. (Ref. 4, 5, 6, 7)

NORTH CENTRAL AND NORTHWEST AFRICA

In addition to the Greek settlements along the Libyan coast there were Phoenician colonies all along the western half of the North

African shore from Leptis (east of Carthage) to the Pillars of Hercules. Carthage was rapidly developing an empire of its own, controlling the old Tartessus area of Spain by 480 B.C. and later gaining all of the western half of the African Mediterranean shore line. It was mentioned in the last chapter that at the end of that century Hanno, of Carthage, had established a large colony down the Atlantic coast of Africa. Other writers have dated this colony, some 2,600 miles down the Atlantic, at 490 B.C., but in any event, archeologists have shown that Hanno was not the first, as there were already ruins of a large megalithic city of Lixus, far south of Gibraltar, just where the ocean current sweeps past to go directly to the Gulf of Mexico. The Romans later called this ancient city the "Eternal City" or by a still older name, "Sun City", as it was apparently built by sun-worshippers who included astronomers, architects, masons, scribes and expert potters. The Sumerians, Assyrians, Hittites, Phoenicians, Egyptians and the Lixus people were all fanatic sun-worshippers, just as were the Olmecs and the Mochica in Mexico and Peru, respectively. The Carthaginian Himilco also continued his trips up to the northern shores of Europe to obtain tin for bronze . In his effort to find the ultimate source of that metal, and avoid the Celtic middle men of France, Himilco finally found the channel islands and then the coast of Britain, either at Cornwall or Devon, eventually to discover the tin mines of Cornwall. (Ref. [8](#), [9](#), [10](#), [11](#)) The Carthaginian position in the Mediterranean was weakened in 480 B.C. when a large Carthaginian force suffered an humiliating defeat at the hands of Greek Syracusans in northern Sicily. Carthage then seemed to also lose its former Etruscan ally, the city-state of Caere. Perhaps this occurred because Caere had tried to establish a colony on the Atlantic island of Madeira as a means of interrupting the Carthaginian merchant marine's monopoly of the tin supply from Gaul and Cornwall. (Ref. [12](#))

In addition to the civilized centers of Egypt, Kush and Carthage, the 4th century center of Cyrene, in present day east Libya, must be mentioned. This was a Greek city, settled in the previous- century but which now dominated an entire community area which was prosperous and cultured. (Ref. [13](#))

SUBSAHARAN AFRICA

The climate continued to deteriorate in the Sahara and life in the Akan jeir Culture of the Tichit Valley of southern Mauretania was becoming progressively more difficult. In this century the areas of Ghana and Kanem began development, probably with the help of Berbers from the north, and with the economic foundation of the export of gold and slaves. Excavations south of Lake Chad give evidence of people, stone and bone implements and cattle-raising at the beginning of this century. (Ref. 14) In Nigeria an iron industry developed on the Jos Plateau, and sculptured heads and figurines in terracotta dating to 500 B.C. have been found near Nok, in that country. About the same time, the Negroes, starting northwest of the rain forests, migrated down through the forest along the great rivers to the central part of the southern savannas and then spread out in all directions to the eastern part of the continent and toward the south. They spoke the Bantu language, which is the ancestor of most African languages today. These men took knowledge of mining and iron with them. (Ref. 15, 16, 17) Hottentots and Bushmen still lived in the far south.

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[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

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[75] GRANT, MICHAEL, The Etruscans. (Chas. Scribner's Sons, New York, 1980).

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[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

1. The word "Ethiopia" is Greek for "burnt-face". Actually this region was usually called "Abyssinia" until 1923. (Ref. 1, 2)

Africa: 400 to 301 B.C.

AFRICA

NORTHEAST AFRICA

Kush continued its prosperity with extensive trade routes. The ruins of both Napata and Meroe still stand today and there are the remains of pyramids like those of Egypt but also Hellenistic pillars, Arabian arches and even hieroglyphs with Hindu-like symbols, all suggesting a cosmopolitan atmosphere. Axum continued to exist still farther south. (Ref. 1)

The Egyptians revolted successfully against the Persians under the 28th, 29th and 30th dynasties, but late in the century, as we shall see, the Macedonian-Greek Alexander took over the old Persian territories, including Egypt. The city of Alexandria was founded just before Alexander's death in about 323 B.C. and there was soon accumulated there a great research library containing perhaps 400,000 manuscripts in literature, mathematics, astronomy and medicine. Later, as Alexander's empire was divided, the Macedonian general, Ptolemy, took over Egypt and helped make it into a great commercial nation.

NORTH CENTRAL AND NORTHWEST AFRICA

A portion of what is now Libya went with Egypt as part of the Persian Empire and then later Alexander's. Otherwise the chief point of interest was Carthage which increased in population and power and participated in intermittent wars with Sicily. Between 310 and 306 B.C. the navies of Carthage and the Sicilian Greeks were in a terrible conflict with the Carthaginians gathering a great invasion force of about 1,500 vessels. In so doing, however, they had to leave the gates of Hercules unguarded, thus making it

possible for the first time in some years for the ships of other Mediterranean nations to reach the Atlantic. (See WESTERN EUROPE, this chapter). To pay their soldiers, after conquering Sicily, the Carthaginians engaged the finest Sicilian Greek artists to make dies for casting new Sicilian-Carthaginian coins, and these were soon circulating wherever the north Africans had business dealings.

In the post-Alexander period at the end of the century the Libyan Greeks of Cyrene became the major source of learned men at the court of the Ptolemies in Alexandria. Cyrene exported chiefly horses and silphium, an herb used in Roman cooking. (Ref. 2, 3)

SUBSAHARAN AFRICA

By 300 B.C. permanent settlement in the Tichit Valley in the southwest Sahara had ended because of desiccation. The Sudanese Negroes, stretching across the continent just south of the Sahara now had iron technology and with greater population, better agricultural methods and possibly greater social cohesion, they were able to expand southward throughout Africa at the expense of indigenous inhabitants whom they conquered, absorbed or displaced. In the early centuries they confined themselves to the drier regions where their cereals could grow. These were the people known in the east and south as "Bantu", although actually the name refers to their language, rather than to any particular tribe. (Ref. 4, 5)

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[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

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[68] GARRATY, JOHN A. and GAY, PETER, (Editors), The Columbia History of the World. (Harper & Row, New York, 1972).

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology.

(Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

Africa: 300 to 201 B.C.

AFRICA

NORTHEAST AFRICA

One thousand miles south of the Mediterranean (in what is now the Republic of Sudan) the Kingdom of Meroe flourished through this period. At first the culture was Egyptian but later it developed a unique African character with its main industry being iron working. It also had gold. This society was a successor to Kush, simply with a new capital at Meroe. Still farther south was the Semitic Habashat Kingdom, established by migrating Yemenites, with a capital at Axum. The local Cushites soon began to accept the language and customs of these Semites and the country began to prosper, exporting ivory, tortoise shell, rhinoceros horn and finally gold, through the Red Sea. (Ref. 1)

The real story of this corner of Africa, however, remained in Egypt. In spite of the Greek conquest of the previous century most of Egypt remained Egyptian and there was a return to Egyptian political ideas. Ptolemy II (Philadelphus), reigning from 309 to 246 B.C. took the title of Pharaoh, the God-King, although personally he was a modest man, intelligent and creative. Under him there was continued expansion along the Phoenician and Asia Minor coasts. Ptolemy III (283 - 221) followed. An interesting aspect of Ptolemaic Egypt is its extensive experiment in state socialism. Although royal ownership of the land had long been a custom, the king now supervised all economic activity. The government decided which fields were to be planted and with what, where crops were to be sold and for how much. It regulated transportation, processing, manufacturing, trade and banking, sold abandoned babies and taxed everything. From about 275 to 215 B.C. this system made the Ptolemies the richest Hellenistic rulers. This wealth was lavished on

the city of Alexandria which became the greatest trade center in the world and acted as a fusion center for people of many religions, including a great number of Jews. The Alexandria Museum was actually a university, engaged in research and records and a certain amount of teaching. During its active phase it helped to produce Euclid, Eratosthenes, Apollinus, Hipparchus, Hero and Archimedes.

At this time the center of Greek medicine also shifted to Alexandria, with Herophilus, anatomist, and Erasistratus, regarded by some as the founder of physiology. He distinguished between motor and sensory nerves, gave names to the heart valves and studied arteries, veins and lymphatic ducts. Actually a number of different sects of medicine such as Dogmatism, Empiricism, Methodism, Pneumatism and Eclecticism developed or radiated out from Alexandria. One of the Dogmatists, Herophilos, was responsible for a number of human anatomical descriptions including various parts of the brain, the intestinal tract, lymphatics, liver, genital organs, eye and the vascular system. The Museum functioned at a high level for only a century, however, and after Ptolemy II it was swallowed up by the Egyptian priestcraft. Attic-Greek was the language of education and administration. (Ref. 2, 3, 4, 5)

The Alexandria library was more permanent. Included in the tremendous collection of some 700,000 volumes¹ was the "corpus Hippocratum" made up of some genuine Hippocratic writings but also treatises and notes of his pupils and even some material from a rival medical school at Cnidus. Eratosthenes became librarian in 235 B.C. and became the founder of the science of geography by making maps and conceiving the idea of projections. In 239 B.C. he calculated the circumference of the earth at 28,000 miles, an error of only 13%. This means that a degree of latitude was thought to be 60 miles, rather than the true 69 miles, an error not great enough to forestall ocean crossings with a fair degree of certain landing. He based his calculations on the proposition that the earth was a sphere and that the sun's rays for practical purposes may be considered to be parallel. Longitude was calculated by dead reckoning. Eratosthenes also reported that papyrus ships, with sails and rigging as on the Nile, sailed as far as the mouth of the Ganges and Ceylon, taking perhaps twenty days to go from the former to the latter, thus averaging about 75 miles per day, a speed of more than three knots an hour. (Ref. 6, 7, 8, 9)

Toward the end of the century radical decay set in, with bureaucratic corruption and slackness. As the century ended the aggressive Syrian king, Antiochus III, defeated the child Ptolemy V and took the Mediterranean coastal possessions of Palestine, Phoenicia and Asia Minor away from the Egyptian Dynasty. There is some indication that bubonic plague, or something very similar, made its first appearance in Egypt and adjacent Libya in this century and then disappeared again for another 800 years. (Ref. 11)

NORTH CENTRAL AND NORTHWEST AFRICA

Carthage was now the richest of the Mediterranean cities, trading in slaves, Egyptian linen, ivory, animal skins, Greek pottery and wine, iron from Elba, copper from Cyprus, silver from Spain, tin from Britain and incense from Arabia. Some Carthaginian planters occupying fertile land in Libya may have had as many as 20,000 slaves. (Ref. 12) In 261 B.C. Carthage supposedly had 1,500 ships with approximately 150,000 crewmen. This is to be compared with the famous Spanish Armada of A.D. 1588 when Spain had 120 ships and 27,000 crew-men, Carthage soon reduced Numidia to a series of vassal states and became the capital of a Semitic empire which spread all along north Africa as well as in the islands of the Mediterranean and in Spain. Although the level of civilization was high in most respects, some of their customs were barbaric, such as sacrificing living children to certain male and female gods. The details of Carthage's great struggles with Rome will be given in later sections under ITALY and SPAIN. It will suffice to say at this time that at the end of the First Punic War a local revolution broke out in Carthage which raged for forty months. And still Carthage bounced back to fight the greater Second Punic War with Rome. At the end of this second conflict, when Hannibal was defeated by Scipio at the gates of the city, it was the beginning of the end of this great city-state, although it struggled on until the middle of the next century. (Ref. 13, 14)

It is somewhat difficult for us today to grasp the magnitude of the Punic Wars. The First was marked by some of the greatest sea battles in history. Consider the following, as collected from ancient historians by Fell (Ref. 15):

Date	Name	Roman Ships	Carthage Ships	Carthage Losses
260 B.C.	Battle of Mylae	150 ships	150 ships	50 ships
256 B.C.	Battle of Ecnomus	230 ships	230 ships	84 ships
255 B.C.	Battle of the Hermaean Cape	200 ships	200 ships	100 ships
242 B.C.	Battle of Aegates Island	200 ships	100 ships	100 ships
Total ships lost				334 ships

Table 1

Each Carthaginian ship had a crew of at least 250 rowers, with 120 more officers and marines. The losses of men in these great sea battles must have been staggering.

Another interesting fact about Carthage at this period is that their coins changed from silver to gold, but with just a small amount of gold - the amalgam called "electrum" - at about 300 B.C. The design also changed to depict the native Carthaginian goddess, Tanith, spouse of Bel. Based on findings since 1976 of alleged Carthaginian coins of this period found in various north American sites, Fell (Ref. 16) believes that the source of the Carthaginian gold was America, obtained from Amerindians in bartering with bronze manufactures of the Cypriot Phoenicians. Such bronze works are now held in storage rooms in Cuenca, Brazil, collected by Professor Paul Cheeseman. This region was a former Inca northern capital, noted for burial hoards and underground valuables. Fell also believes that these same North African mariners traded with North American Algonquin tribes for timber which they used for ships. After the terrible naval defeats by Rome and the absence of a navy, trade with America was no longer profitable or even possible.

SUBSAHARAN AFRICA

In northern Nigeria the so-called Nok Culture has been identified with terra-cotta figurines, and evidence of iron slag and tin-mining, dated by radio-carbon technique to about 300 B.C. Along the high cliffs of Bandiagara on the edge of the Hombori Mountains near the bend of the Niger River in Mali, the Toloy people built granaries of mud coils and stored them in giant caves in the cliffs, while their villages were probably on the plains below. (Ref. 17) Along the Congo River there were Stone Age gathers and fishermen about 270

B.C. In the east and south there was a continued take-over by the Sudanese Negroes who were now called Bantu, after their language. (Ref. 18, 19)

1

[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

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[47] DURANT, WILL, Ibid., Part II - The Life of Greece. (1939).

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[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D., Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York 1978).

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[15] BOOKSAND MEDICINE, (Editors), M.D. Medical News Magazine, Vol. 3, No. 8, Aug. 1959.

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[224] VAN ANDEL, TJEERD, Tales of an Old Ocean. (The Portable Stanford, Stanford Alumni Assoc., Stanford, Calif. 1977).

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[15] BOOKSAND MEDICINE, (Editors), M.D. Medical News Magazine, Vol. 3, No. 8, Aug. 1959.

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[65] FELL, BARRY, America B.C. (Quadrangle - The New York Times Book Co., 1976).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

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[15] BOOKSAND MEDICINE, (Editors), M.D. Medical News Magazine, Vol. 3, No. 8, Aug. 1959.

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[140] MCNEILL, WILLIAM H., Plagues and Peoples. (Anchor Press/Doubleday, Garden City, New York 1977).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[251] BEDAUX, ROGIER M.A., "Rediscovering the Tellem of Mali", Archeology 35: No. 3, pp. 28-34, May/June 1982.

18

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

19

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

1. Equal to 50,000 modern books. (Ref. 10)

Africa: 200 to 101 B.C.

AFRICA

NORTHEAST AFRICA

In the southern part of this area Kush as well as Axum continued to flourish. About 200 B.C. Egypt lost all its acquisitions outside of continental Africa as the Ptolemaic armies were defeated by the Seleucids at Panion. The Macedonian dynasty continued to reign, however, and their administrations promoted continued intellectual and commercial activity, particularly at Alexandria. The welding of Egypt and Syria onto the rejuvenated Ionic Greek world created a high economic unit and allowed cities of the magnitude of ninety to one hundred and fifty thousand people to develop, the first of these being, of course, Alexandria. By the end of the century the Egyptians were chafing under the Hellenic Ptolemy ruling class, however, and eventually the Egyptian priesthood swallowed up the Ptolemies as they also destroyed the Aristotelian mentality of the Museum, and scientific energy was extinguished. (Ref. [1](#), [2](#), [3](#))

NORTH CENTRAL AND NORTHWEST AFRICA

Carthage recovered from the Second Punic War and regained considerable prosperity although it was subjected to frequent raids from neighbors such as King Massinissa of the Numidians, who were the ancestors of the Berbers. In 151 B.C. Carthage finally declared war on Numidia (now primarily Algeria) and a year later Rome joined the battle, initiating the Third Punic War. For three years Carthage valiantly withstood the Roman siege engineered by Scipio Aemilianus, but the city finally fell and in 146 B.C. the Romans brutally plundered and burned it, possibly to prevent its falling into the hands of the Numidians. (Ref. [4](#)) This pretty well

terminated the old Phoenician Empire, but the Punic cisterns remained and street plans were preserved and later used as patterns for Roman reconstruction.

After this last Punic War Massinissa's son, Micipsa, ruled Numidia and remained an ally of Rome. Misipsa's heirs included a nephew, Jugurtha, along with his own two sons. By 116 B.C. Jugurtha had one of the sons assassinated and had run off the other and taken his own case for control of Numidia before the Roman Senate. The latter gave most of Numidia to Jugurtha except for the city of Cirta which was granted to the remaining son of Misipsa, Adherbal. Jugurtha promptly set siege to Cirt, killing off all the inhabitants including some Roman business men, thus incensing Rome and particularly the Equestrian business community. Armies were sent to North Africa once again, this time against Numidia, but Jugurtha was not defeated until his father-in-law, Bocchus, King of Mauretania, was persuaded by Lucius Cornelius Sulla to betray him. The African struggle ended in 105 B.C. with Jugurtha a prisoner and strangled in Rome. The Romans then spread west from Carthage, also controlling Morocco. (Ref. 5, 6, 7)

Polybius, the Roman historian, regarded the North African Greeks as a people considerably different from those of Greece, itself. They were olive-skinned and represented a fusion of Greek and North African natives. These were the Libyans and they were devoted to the sea, living all along the North African coast from Cyrene next to Egypt, west to Mauretania on the Atlantic. The area included not only what we now call Libya but also Tunisia, Algeria and Morocco. A long chain of ruined, once great, beautiful, marble and limestone cities now mark the places where these seafarers once lived. When Libyan kings ruled Egypt their ships sailed to the Atlantic ports of Spain and Fell (Ref. 8) says to the Americas across the Atlantic and to the Pacific via the Indian Ocean and the Malacca Strait. The ancient Libyans living west of Cyrene spoke a dialect of pre-classical Arabic containing many Berber loan words. According to Fell's hypotheses this may be the origin of the Arabic found in some American locations.

SUBSAHARAN AFRICA

Radio-carbon datings from the walls and potsherds of the mud buildings in the Mali region caves of the Toloy people indicate that

they were still there in this century, but not subsequently. (Ref. 9)
This was an era of continued Negro migrations down the entire continent. This gradual occupation of almost the whole of the arable soil of Africa in the west by Negroes and of the east and south by the Bantu-speaking groups, overall took about 1,500 years, during which time sub-Saharan Africa was largely cut off from the rest of the world.

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[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

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[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

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[206] STILLMAN EDMUND AND EDITORS OF LIFE, The Balkans. (Time, Inc., New York, 1964).

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[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

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[53] DURANT, WILL AND ARIEL, Ibid., Part VIII - The Age of Louis XIV. (1963).

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[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

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[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[251] BEDAUX, ROGIER M.A., "Rediscovering the Tellem of Mali", Archeology 35: No. 3, pp. 28-34, May/June 1982.

Africa: 100 B.C. to 0

AFRICA

NORTHEAST AFRICA

Meroe, now the Republic of Sudan, continued to flourish one thousand miles south of the Mediterranean and Axum continued with some prosperity in the area of northern Abyssinia, now Ethiopia.

In the first part of this century Egypt remained under the Macedonian Ptolemy Dynasty but Caesar marched into the country and took control between 48 and 47 B.C., making the famous alliance with Cleopatra, Egyptian queen. Upon his death Cleopatra made a similar alliance and dalliance with Marc Antony and such was her apparent charm that in 37 B.C. Antony gave up all interest in his government and settled with the queen in Alexandria to a life of pleasure. Stripped of his office by the Roman Senate and defeated at sea by Octavian, he committed suicide in 30 B.C. along with Cleopatra. Egypt was then formally annexed to the Roman Empire under the Emperor Octavian, although the life of the average Egyptian was probably little affected by these administrative changes. At the end of this century there were about 8,000,000 people in this country.

NORTH CENTRAL AND NORTHWEST AFRICA

Numidia, now Algeria, joined Carthage to become Roman during this century. The thick belt of megalithic tombs which have been found across north Africa date to this and the next century and thus have no chronological relationship to the similar but much more ancient ones of Europe. No explanation has been offered. The Roman historian, Sallust, of this century, writes that the Libyans

were descended from a people who came from Asia Minor and were allied to the Phoenicians through their language. Arab historians have recorded similar beliefs. (Ref. [1](#), [2](#), [3](#)) Cyrene, with its large Greek component, became a province of Rome in 74 B.C. (Ref. [4](#)) In the Sahara, itself, water holes had essentially disappeared and there was now truly desert. The great dunes called "ergs" had formed and the rains had become most irregular.

SUBSAHARAN AFRICA

There was no great change in the southern two-thirds of the continent. Iron working continued to spread at a slow pace in the Niger Basin. The camel was introduced into the Sahara from Asia about 100 B.C. The Bantu speakers continued their slow migration down the eastern lands. (Ref. [5](#)) One theory, based on archaeological and skeletal remains, suggests that at about the end of the century a few of the Caucasoid pastoralists descended from the eastern highlands into South Africa. From them some Bushmen acquired cattle and evolved into the culture of the Hottentots. (Ref. [6](#))

[1](#)

[215] THORDNDIKE, JOSEPH J., JR., (Editor). *Mysteries of the Past*. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

[2](#)

[176] READERS DIGEST, *The World's Last Mysteries*. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

[3](#)

[66] FELL, BARRY, *Saga America*. (Times Books, New York, 1980).

[4](#)

[222] TRAGER, JAMES, *The Peoples Chronology*. (Holt, Rinehart & Winston, New York, 1979).

[5](#)

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

[6](#)

[83] HALLETT ROBIN, *Africa to 1875*. (The University of Michigan Press, Ann Arbor, 1970).

Africa: 0 to A.D. 100

AFRICA

NORTHEAST AFRICA

In the south of this region the kingdom of Meroe continued its iron-making and gold production, unmolested. The kingdom of Axum in north Ethiopia and southwestern Arabia now became a strong empire, with a capital city of the same name and Adulis (now Massawa) as the Red Sea port and with a wealth founded on ivory. Axum was a pagan city of palaces and temples which now had many Jew¹ and Greek immigrants. The country had many Greek insignias and a Greek educated king. (Ref. **1, 2, 3**)

Egypt continued under Roman rule. In Alexandria the Jewish population increased reaching perhaps to 40% of the total of the city. Among those was the Jewish philosopher and theologian, Philo, who developed the Logos ideas of the Greek Stoics into a concept which has come straight down through the centuries in the Christian theology. "God, in Philo's writings, is the essential being of the world, incorporeal, eternal, indescribable; reason can know his existence, but can ascribe no quality to him--." ² In order to create the world and establish relations with man, Philo felt that God used a group of intermediary beings. While these had been called *diamones* by some Greeks and *Ideas* by Plato, they were called angels by the Jews. Although popularly conceived as persons, Philo thought they existed only in the Divine Minds as the thoughts and powers of God, such powers as the Stoics called *Logos*, which created and then guided the world. "Philo sometimes thinks of the *Logos* as a person. In a poetic moment he called the *Logos* 'The first-begotten of God', son of God by the virgin Wisdom, and says that through the *Logos* God has revealed himself to man. Since the soul is part of God, it can through reason rise to a mystic vision, not

quite of God, but of Logos³. Durant (Ref. 5) felt that Philo's Logos was one of the most influential ideas in the history of thought, although its antecedents in Heracleitus, Plato and the Stoics are obvious. "Philo was a contemporary of Christ, but he apparently never heard of him although he shared unknowingly in forming Christian theology. Philo tried to mediate between Hellenism and Judaism. From the Judaic point of view he failed; from the historical point of view he succeeded, and the result was the first chapter of the Gospel of John".⁴

During the period of the Roman administration of Egypt the irrigation systems were raised to great efficiency. While the government remained Roman, the people remained Egyptian (and Jewish in the cities).¹

1

From this century on until the 19th century first the Aksumite and then the Christian Amhara were expansionist, seizing land and incorporating people. (Ref. 9)

NORTH CENTRAL AND NORTHWEST AFRICA

Roman Carthage was the capital of proconsular Africa and second only to Rome, itself, in the western Mediterranean. It became a center for education and soon a strong- hold for early Christianity. Plutarch, living in this century, allegedly described voyages of the Carthaginians to North America (Epeiros, in his language) via Iceland (Ogygia) and a return route following the anti-trade winds around latitude 40 degrees north, back to Spain and Carthage. Diodorus of Sicily described a southern route when he spoke of the discovery of an island by Carthaginians which may have been Cuba. (Ref. 10, 11)

The ruler of Mauretania (northern Morocco and western Algeria), another Ptolemy, was murdered in A.D. 40 on the order of the Roman Caligula, but it did not destroy the Berber spirit of independence and they never completely gave up to the Romans. The dromedary, one-hump camels first were brought to the Sahara in this century but they were not used to any great extent for another seven hundred years with the Arab invasion. (Ref. 12)

SUBSAHARAN AFRICA

In West Africa on the inland delta of the great Niger River there existed at this time, and probably it had existed for over two hundred years, the village of Jenne-jeno, which has just recently been excavated. Situated only about 300 miles up river from Timbuktu it is probable that even in this early time there were beginning trade relationships by water. Pottery in use through this period was of a design seen several centuries earlier in the southern Sahara, indicating that the original population may have originated there. We shall hear much more about this community which did not reach its peak of development until about A.D. 100. (Ref. 13)

Madagascar had probably been unknown to men until about the time of Christ, when Indonesians arrived with out-rigger canoes and eventually sails. Beginning in this century these sea-farers brought "wet-zone" crops like the Asian and Coco yams and banana to Madagascar and thus to East Africa⁵. Madagascar had probably been unknown to men until about the time of Christ, when the Indonesians arrived with out-rigger canoes and eventually sails. With their new crops the Negroes found it possible to start moving into the humid forests and low-lying river valleys, thus beginning the settlement of more central Africa. The Bantu-speaking people continued their slow migration down the east coast of Africa. There was iron smelting in Kenya by A.D. 100. (Ref. 14)

1

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

2

[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

3

[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

4

[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

5

[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

6

[86] HANSEN, JAMES, "Knights of Malta, mini-nation based on Chivalry", Smithsonian 12: 112-127, Jan. 1982.

7

[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

8

[311] CAPUTO, ROBERT, "Ethiopia: Revolution in an Ancient Empire", National Geographic 163, No. 5: 614- 644, May 1983.

9

[84] HAMBLIN, DORA JANE, "Carthage must be destroyed' It was but now it is reappearing", Smithsonian 9: 442, Feb. 1979.

10

[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

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[268] MCINTOSH, SUSAN & RODERICK, "Finding West Africa's Oldest City", National Geographic 162: 396-417, Sept. 1982.

13

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

14

[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

1. The Falasha of today are the descendants of these Jews (Ref. 4)
2. As quoted from Durant (Ref. 6), page 501
3. The translations of these ancient writing are those of Fell (Ref. 7), page 54, and to my knowledge not otherwise confirmed
4. Quotation taken from Durant (Ref. 8), page 502
5. Hallett (Ref. 15) puts this at the 4th century C.E.

Africa: A.D. 101 to 200

AFRICA

NORTHEAST AFRICA

The kingdoms of Meroe and Axum continued to develop. (See page 292) Egypt was under the rule of the Roman emperor, but beyond the mouth of the Nile, the country was actually little touched by Romanization. The royal custom of brother-sister marriage had been copied by the lower classes, and it has been estimated that by this century two-thirds of the citizens of Arsinoe were off spring of sibling unions. Alexandria was now a great trade center containing some 500,000 people, receiving goods from Red Sea ports and exporting its own manufactured products such as linen, processed Arabian drugs, Indian perfumes, papyrus, glass-ware and Egyptian grain. This city which originally was one of the greatest of the Greek cities, gradually became more and more oriental. Strife between Greeks and Jews resulted in massacres; soldiers mutinied and taxes soared.

Ptolemy, or Claudius Ptolemaeus¹, was a great scientist concerned with the Alexandrian library in this century. Inspired by Hipparchus, who appeared to have provided one of the links between Babylonian and Greek science, Ptolemy wrote a mathematical treatise which became known as the *Almagest*. The 360 degree circle of the Babylonians was used, trigonometry was promoted and astronomy advanced, although with some errors. With 1,002 stars catalogued the heaven was considered spherical and as rotating around the immobile earth sphere. This concept made Ptolemy's theories very acceptable to the theologians of the later Middle Ages. He did have a system showing relationships of stars and planets which was effective from the practical standpoint. He also wrote a *Geographical Treatise* which included the

geography of Marinus of Tyre. (Ref. 1)

NORTH CENTRAL AND NORTHWEST AFRICA

North Africa remained the granary of Rome, with the Moors as the dominant people of the area now developing considerable sea-power and prestige. The Moors were of Berber origin (later with an Arab mixture) and came originally from south of Morocco in the country of present Mauretania, on the great Atlantic bulge of Africa. In about A.D. 125 a locust invasion destroyed large areas of cropland and this was followed by a plague which killed perhaps 500,000 in Numidia and possibly 150,000 more on the coast. (Ref. 2)

SUBSAHARAN AFRICA

The changes in central, eastern and southern Africa were very slow. As noted in the last chapter, the introduction of wet zone crops like the yam and banana allowed better penetration of the Bantu-speaking blacks into the forest and low-lying river valleys and coastal plains. They also continued to drift south along the Indian Ocean coast. (Ref. 3)

1

[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

2

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

3

[68] GARRATY, JOHN A. AND GAY, PETER, (Editors), The Columbia History of the World. (Harper & Row, New York, 1972).

1. Not to be confused with the pharaohs of the B.C. centuries

Africa: A.D. 201 to 300

AFRICA

NORTHEASTERN AFRICA

The kingdom of Kush fell prey to desert nomads but in Ethiopia Axum continued as a powerful, well developed entity. Coins were minted and much of the Sudan to the west was conquered. Ivory, rhinoceros horn, hippopotamus hides and slaves were all exported through the Red Sea harbor of Adulis. Unfortunately even at this early period excessive rains with flooding, along with forest clearing and cultivation of hilltops and slopes had started soil erosion that was to eventually be part of the downfall of this unusual kingdom. (Ref. [1](#), [2](#))

Egyptian prestige¹ began to decline under destructive factionalism, a massacre of all adult males capable of bearing arms (by Emperor Caracalla) to prevent revolt, high taxes, listless forced labor and Rome's annual exaction of grain. Sea trade from the Mediterranean went principally up the Nile to Thebes, then over to the Red Sea and on by boat. The refurbished Nile-Red Sea canal was a disappointment to the Romans (as it had been to the Ptolemies and the Persians) because winds in the northern Red Sea were unreliable and merchants did better with the Nile to Thebes route. At the last of the century (266 to 272), Queen Zenobia's conquering of Egypt and siege of Alexandria resulted in the death of half the population and helped Egypt's decline. (See IRAQ AND SYRIA, below) In A.D. 272 Egypt was reconquered by Rome. (Ref. [3](#))

NORTH CENTRAL AND NORTHWESTERN AFRICA

Rome continued to dominate the coast line of north Africa, but in the far northwest Moorish (chiefly Berber) culture and activity

increased with expansion of the territory they controlled. The cities of the Sahara had a flourishing commerce with coastal cities, probably sending precious stones, slaves and ivory for trade. (Ref. 4)

SUBSAHARAN AFRICA

At this time there was the beginning of the development of the Empire of Ghana at the northern curve of the Niger River. The village of Jenne-jeno, which we have previously mentioned, may have been a part of this process. On the east the iron and cattle cultures spread almost completely to the southern tip of Africa. Blackburn was established in A.D. 105 and the use of iron spread from the Funa River (off the Congo) to Katanga and the Lakes region. In the southwest, the Khoikoi peoples, speaking the Khoisan language, only slowly gave way to the aggressive Bantu-speakers. Indonesian traders appeared in increasing numbers along the east coast in this and the following centuries.

1

[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

2

[270] BUTZER, KARL W., "Empires, Capitals and Landscapes of Ancient Ethiopia", Archaeology Vol. 35, No. 5: 30-37, Sept./Oct. 1982.

3

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

4

[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

1. Diophantus, a Greek of Alexandria, wrote a treatise of algebra, solving determinant quadratic and indeterminate equations up to the 6th degree, in about A.D. 250.

Africa: A.D. 301 to 400

AFRICA

NORTHEASTERN AFRICA

In the region of Sudan the old Kushite Kingdom had been replaced by the Kingdom of Meroi, although the basic population remained a Kush people. The new kingdom had a unique African character but it did not thrive long, apparently conquered sometime between 320 and the end of the century by neighboring Axum of northern Ethiopia. The name "Kush" now disappeared, to be replaced by "Nubia". The Nobatae, coming from Kordofan and the Blemmyes (Bela) coming from the Nile Valley to the east, blended with the old Kushites to form the population of medieval Nubia. Before Christianity came to this area there are indications that this was, in modern terminology, a "swinging place". Remnants of a large tavern constructed in the middle of the century at Ibrim indicate that the wine flowed freely up to about A.D. 500. (Ref. 1, 2) The populous Axum had adopted the Monophysite Christian faith and this new religion was the foundation of the kingdom which was soon to be called Abyssinia. By 362 this kingdom also included a portion of the southern Arabian area. A distinguishing feature of Axum was the use of stone-masonry without mortar. There is still standing a 23 meter high obelisk, simulating a nine-story palace, constructed in this 4th century when this state was considered one of the four world powers. (Ref. 3) The Axum emperor, King Ezana, had been converted to Monophysitism by the Syrian Frumentius who had originally been shipwrecked on the Red Sea coast.

The resulting Ethiopian Orthodox Church, actually a branch of the Egyptian Coptic, spread over the highland of north Ethiopia. (Ref. 4, 5)

In Egypt there was political and cultural decline. Christianity

made many converts along the coast but of the Monophysite variety. This sect believed that there was only one nature in God and Jesus, with a complete denial of the Trinity. This faith survives today in some eastern areas and, as suggested above, particularly in Ethiopia. Arianism, another great "heresy" which was mentioned above, also originated in Alexandria. In contrast to the dogma of the Monophysites, Arius preached that Christ was not one with God but rather the Logos (See Philo, page 297), the first and highest of all created beings. The Son was neither coeternal with nor consubstantial with the Father. Politically, Egypt remained nominally under the Roman Empire, even as it began to collapse. A popular literature in the Coptic language appeared in this century. (Ref. 6, 7)

NORTH CENTRAL AND NORTHWEST AFRICA

The coast line of North Africa remained subject to Roman control as the Christian faith spread across the area. As in the last century, in the west the Berber-Moors became more and more prolific and independent. Although camels had been present in Africa previously they now came into extensive use by the Berbers, a feature which helped them to become formidable opponents to all foreigners along the coast. In the 370s Firmus, a Moorish chieftain, rebelled against the Roman Valentinian I and was stopped only after a series of massacres. (Ref. 8, 9)

SUBSAHARAN AFRICA

There was very little significant change from the last century. In the west the Empire of Ghana continued its development, while all along the east coast the Bantu-speakers expanded and more Indonesian traders appeared bringing the Asian yam and taro from Southeast Asia. The latest estimate of the time of the establishment of Great Zimbabwe by Bantu-speaking blacks is A.D. 320 (150 years). These were the Gokomere people and they may either have lived there or simply used it as a camp. There is some evidence that they had iron. (Ref. 10, 11, 12, 13)

271. ANDERSON, ROBERT D., "Qasr Ibrim: Watchdog of the Nile", Archaeology Vol. 35, No. 5: 58-60, Sept./Oct. 1982.

2

[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

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[270] BUTZER, KARL W., "Empires, Capitals and Landscapes of Ancient Ethiopia", Archaeology Vol. 35, No. 5: 30-37, Sept./Oct. 1982.

4

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

5

[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

6

[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

7

[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

8

[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

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[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[83] HALLETT ROBIN, Africa to 1875. (The University of Michigan Press, Ann Arbor, 1970).

13

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

Africa: A.D. 401 to 500

AFRICA

NORTHEAST AFRICA

Ethiopia continued to be a Christian area in communication with southern Arabia and Egypt. Axum expansion in the first half of the century was followed by a period of stagnation in the last half although Byzantine missionaries and traders continued to visit the region. Nominally under Axumite control, Nubia apparently was not really Christianized in this century. The religious and political confusion of this period is apparent in four papyri recently discovered at Qasr Ibrim. Three were written in Sahidic Coptic and the fourth in provincial Greek. The Coptic ones were all addressed to Tantani, Governor of Nubia and apparently Christian. The Greek document is from a pagan king of the Blemmyes to the king of Noubades and refers to a former supreme king of Nubia, called Silco. (Ref. 1, 2)

Nominally still under control of Rome, Egyptian Society, according to Toynbee (Ref. 3), became extinct in this century leaving no "offspring" in any subsequent society, to date. The little intellectual activity that remained in the remnants of the Roman Empire was now centered in Byzantium, but considerable religious maneuvering continued in Alexandria. Cyril, Patriarch of Alexandria, and later one of the two or three St. Cyrils, led a great struggle against Nestorianism which finally culminated in the Council of Ephesus in 431. Cyril presided and had the support of Pope Celestine 1. His doctrines, although considered orthodox at the time, were actually in part those of Monophysitism and after him this became the national faith of Egypt - eventually the Coptic Church. (Ref. 4)

NORTH CENTRAL AND NORTHWEST AFRICA

In contrast to Egypt this part of Africa was a very busy place. In the far west Morocco was invaded and conquered by Berbers coming from the southwest, and then they even attacked the Roman holdings, using newly domesticated camels. In 427 Bonifatius, Roman military commander in north Africa, was about to be cut out of command by enemies in the emperor's court in Ravenna, so he rebelled and called upon the Vandals of Spain to come to his aid. In the following year, Asding Vandals from Spain did go to north Africa, sailing with a large fleet under King Gaiseric who proceeded to conquer most of north Africa, eventually even Carthage (A.D. 455) and then Sardinia, Corsica and the western part of Sicily. The total number of Vandals leaving Spain was probably not over 80,000 but they had the advantage of local social unrest and the cooperation of Bonifatius and thus met little local resistance. Many Berbers and the Donatist heretic group of Christians with about one-half of their bishops also helped the invaders against the Romans. The Donatists were the followers of the once Bishop of Carthage, Donatus, who denied the efficacy of sacraments administered by priests who were themselves in a state of sin, and the Church, willing to risk so much on the virtues of the clergy, repudiated the idea.

As a result of their persecution the Donatists became bands of revolutionists, at once both Christian and communist, condemning poverty and slavery and ending in fanaticism, happy to help the Vandals, who were Arian Christians. Once Gaiseric had obtained Carthage he used the facilities there to greatly augment his navy and subsequently was able to actually sack Rome, itself. Barry Fell (Ref. 5) believes that some orthodox Christians actually sailed to North America at this time to escape the Vandals. According to Herodotus, the Garamantes of Fezzan in the desert had horse-drawn chariots, probably obtained from Egypt. (Ref. 6, 7, 8, 9, 10)

Among the more orthodox Christians of North Africa was St. Augustine, who had become converted from paganism and sin as a youth and who later wrote extensive theological dissertations rationalizing the religion and establishing many Catholic doctrines, as he introduced some element of Greek philosophy into Christianity. It was mentioned in the last chapter that Thomas (Ref. 11) considers him one of the four great "fathers" of the Catholic

church. He was killed during one of the Vandals' sieges.

SUBSAHARAN AFRICA

In the Sudan, the roots of the great African Kingdom of Ghana may date back to A.D. 400. Certainly the town of Jenne-Jeno was prospering at the inland delta of the Niger. The eroded foundation of a house has been excavated along with pottery and urns for burial and remains of a wall about three meters wide and four or more meters high that girded the city. All of these things have been dated to this or the next century or two. In central Africa there was continued proliferation of the black people, particularly the Bantu-speakers. (Ref. [12](#), [13](#))

[1](#)

[270] BUTZER, KARL W., "Empires, Capitals and Landscapes of Ancient Ethiopia", *Archaeology* Vol. 35, No. 5: 30-37, Sept./Oct. 1982.

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Africa: A.D. 501 to 600

AFRICA

NORTHEAST AFRICA

There were three separate Christian kingdoms in the region of Nubia in the middle Nile. At Ibrim an old temple, which was originally built probably during the Ethiopian Dynasty of Egypt in the 7th century B.C. and then modified later with typical Meriotic graffiti and votive inscriptions, was now made into the earliest of Ibrim Christian churches. A defensive wall around the church is now partially covered by Lake Nasser. (Ref. 1)

Early Abyssinians were active militarily, invading the Yemeni kingdoms on the Arabian Peninsula. In the middle of the century Axum was at the height of its power with a splendid court boasting royal elephants and gold. The capital city funneled materials from inner Africa to a maritime network reaching as far as Spain and even China. Axum covered an area of 75 hectares and contained many multistory stone buildings with 10,000 to 20,000 inhabitants and a fringe of suburban, elite villages. (Ref. 2) But the downfall of this country started when the Persians expelled the Axumites from south Arabia as a part of the Byzantine-Persian Wars. This was followed by raids by pagan Beja on the farmlands, so that gradually the people moved deeper into the highlands, merging with the pagan and Judaized people there and becoming the Abyssinians proper, the nucleus of later Ethiopia. (Ref. 3, 4)

Egypt continued to decay, politically and intellectually. Part of this was promoted by the decline in the incense trade which had previously come from the south, in part through Egypt. The country remained nominally under the control of the Byzantine Empire.

NORTH CENTRAL AND NORTHWEST AFRICA

The Vandal kingdom of North Africa was reconquered for the Byzantine Empire by Justinian's General Belisarius in 533. Otherwise North Africa remained much as in the last century. (Ref. 5)

SUBSAHARAN AFRICA

In the tropical regions the availability of iron after A.D. 500 led to the development of kingdoms whose chief weapons were iron spears. A few Negroid Bantu-speakers filtered into the Bushman and Hottentot domains in South Africa. (Ref. 6, 7)

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Africa: A.D. 601 to 700

AFRICA

NORTHEAST AFRICA

The Ethiopian upland soils had been largely destroyed, exposing underlying rocks. In the middle of the century, threatened by Muslim neighbors, Axum lost its Red Sea ports and had its gold supply cut off so its Christians retreated to the highlands, where they remained in isolation until the 15th century. Abandoned buildings deteriorated and contributed to the soil destruction. Land abandonment can be as destructive as over-use and there can be little doubt that all this exacerbated Axumite economic decline. (Ref. 1)

To the west in Nubia, Coptic Christians thrived. After an Egyptian attack in 651-652 relations between Christian Nubia and Moslem Egypt were formalized by treaty which included an agreement that Nubians would return all runaway slaves to Egypt. A cathedral was built about A.D. 700 in Qasr Ibrim and there were plans to make this a pilgrimage center. Nubia hereafter remained Christian for about 700 years. Just north of the present-day Aswan Dam, the survival of paganism into this 7th century on the island of Philae had been a notable scandal stimulating Byzantine missions into the area. (Ref. 2)

Egypt fell to the Persians temporarily in 616 but fell again to the Arabs later in the century, with Alexandria conquered by the latter in 660. The Monophysite Christians of Egypt actually helped the Moslems overthrow the existing administration. After the conquest, Amr ruled for the Arabs and did so well. (Ref. 3, 4)

NORTH CENTRAL AND NORTHWEST AFRICA

In the last third of the century the raiding Moslems easily took Tripolitania but on their original drive westward they were repulsed from Tunisia by Roman Empire troops. Subsequently, however, conversion of the indigenous Berbers¹ to Islam in 696 gave Islam a new push and the Byzantine forces in Tunisia were then overrun and Carthage was destroyed again. Soon Morocco also fell to the Islamic onslaught. Shortly thereafter trade routes for slaves, ivory and gold opened up between Morocco-Algeria and the western Sudan. The Murabits (also Almoravids) of Morocco turned south, shattering the Negro Empire of Ghana.

The Berbers were of an entirely different race from the Arabs, having roundish heads contrasting with the Arabs' long heads. Even when some were initially converted to Islam, allowing the Moslem advance, most of the Berbers retreated to the naked mountains dividing Tunisia's coastal plains from the desert. Even so, the Muslims made a greater impact on these people than Rome or Christianity had previously done. (Ref. 5, 6, 7, 8, 9)

SUBSAHARAN AFRICA

From 500 to 1,200 ancient Ghana, in what is now Mali, monopolized the gold trade from west Africa to Europe. It sat at the southern end of the trans-Saharan caravan routes and thus acted as the hub. Kumbi Saleh was a city of 15,000 people. The excavated ruins of the ancient city of Jenne-Jeno had a formidable three meter-wide wall surrounding it which was constructed sometime between 400 and 800. Delicately constructed gold jewelry has been found under this city wall, indicating that this was a trade center over a long period of time. The nearest gold mines were 800 kilometers south of this developing city. (Ref. 10) The Moslem invasion of Ghana from the north caused some disruption in administration certainly, but did not destroy the fundamental culture or the developing cities.

In the far southeast of Africa the Leopard's Kopje people, a Bantu-speaking group, were in control of Great Zimbabwe from about A.D. 600 to 850. (Ref. 11) Elsewhere the great bulk of Africa remained as in previous centuries.

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[45] DANIEL, GLYN (Consulting Editor), *Encyclopedia of Archeology*. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

1. "Berber" is an Arab word meaning "barbarian"

Africa: A.D. 701 to 800

AFRICA

NORTHEAST AFRICA

In the last chapter we told of the collapse of Axum. Apparently as a last gasp, the Axumites made an unsuccessful attack on Mecca in A.D. 702 which was followed by Arab retaliation and Butzer (Ref. [1](#)) says that it was at that time that the port of Adulis was destroyed and many Red Sea islands seized. At the same time the Christian monarchy had to withstand ravaging attacks by pagan Beja. (Ref. [2](#)) After 765 Axum was almost completely abandoned.

The horn of Africa was not affected by the Bedouin Arabs, but the people there still retained close ties with Arabia. Of the three kingdoms of the middle Nile which had originated in the 6th century, the two northern ones now merged to form the Kingdom of Nubia, with a capital at Dongola, exerting its influence from the 1st to the 4th cataract of the Nile and west to Darfur. The country was Christian, prosperous and used a highly decorative pottery and developed a lucrative slave trade to Egypt. There was a gradual peaceful infiltration of Moslem Arabs into the area. Farther south at the confluence of the Nile was the Kingdom of Alwa, with its capital at Soba. It resisted the Moslem faith a little longer. (Ref. [3](#), [4](#))

Egypt was entirely under Moslem Arab control with supervision direct from the caliph in Damascus and later Baghdad.

NORTH CENTRAL AND NORTHWEST AFRICA

This entire region was now under Moslem control, subject to the caliph in the Middle East. As mentioned in the last chapter, the Berbers of Tunisia and Morocco adopted Islam as they had previously adopted Christianity: with neither was it a total

embracement and they, in addition, clung also to older tribal beliefs. Although called "Berbers" by the Arabs they called themselves "Imazighen", "Men of the Land", and their tongue, totally unlike the official Arabic, was Tamazight, still spoken today. (Ref. 5) The great Roman ports all over the Mediterranean were allowed to decline. Although they could sail the Indian Ocean, the Arabs ignored Mediterranean shipping routes and went overland with of central Tunisia, was the administrative center for the Arab Empire in the Maghrib. (Ref. 6)

Although the Omayyad Dynasty controlled the entire Moslem world in the first half of the century, as was intimated above, the Abbasids took over in A.D. 750 with Caliph Harun al Rashid establishing a capital at Baghdad. By A.D. 788 Morocco had declared its independence from Baghdad and Tunisia followed just after the turn of the new century. The new Moroccan Empire was to last over a millennium. (Ref. 7, 8)

SUBSAHARAN AFRICA

About A.D. 700 people from the upper Nile moved into Chad, just east of Nigeria, and established a string of cities. At about the same time traders were becoming ever more daring in crossing the Sahara to obtain gold and slaves. The increasing use of camels greatly facilitated this traffic and the traffic, in turn, seemed to monopolize the supply of gold and slaves and thus developed more systematic and larger operations. Ghana seems to have come under the control of a new dynasty in this century and this may have been the transfer of authority from Berber to Negro rulers.

Merchants of south Arabia, the Persian Gulf and northwestern India had long traded along the east African coast for palm oil, ivory, tortoise shell, rhinoceros horn and slaves. Finally some of the Asians settled in east Africa and they were soon joined by religious refugees from Oman and Shiraz on the Persian Gulf. These Asians were responsible for the beginning of a chain of independent settlements all along the coast. They became city-states and because Arab shipping soon supplanted earlier traffic, all soon became Moslem. Excavations on the shore of Lake Kisale in northern Katanga (between Angola and the Great Lakes) indicate that in this 8th century there was a dense population using fine pottery and elaborate copper jewelry. This may be the original home of the

Luba people (Ref. 9)

The population on Madagascar now included Indonesians, Arabs and Negroes, the later probably originally slaves or concubines. The Negroes multiplied more rapidly, probably because of greater resistance to malaria, but there was much intermarriage and soon a unique "Malagasy" people emerged. (Ref. 10)

The central rain forest of Africa and the semi-arid south remained untouched by civilized men, although the Bantu-speaking tribesmen continued to spread their settlements through the forest of the Congo basin and still farther south. The Leopard's Kopje people were still in control of Zimbabwe. (Ref. 11, 12)

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Africa: A.D. 801 to 900

AFRICA

NORTHEAST AFRICA

The old Axum monarchy established a new residence deep in the interior of Ethiopia around Lake Hayq sometime before A.D. 870. This was actually a Christian monastery with some 300 clerics. The old Axumite area was given up entirely to invading sheep herders. (Ref. 1) Nubia remained essentially as in the last century.

Egypt was a Moslem state but independently ruled by the Tulunid Dynasty. These men were Turkish in origin, having been brought into Islam as professional soldiers. One of them, Ahmad ibn Tulun (869-884) conquered Syria to add to his realm. Egypt, as the ancient granary for southern Europe, no longer robbed of its products by foreign masters, entered upon a minor renaissance, with new learning and art, palaces, public baths, a hospital and a great mosque honoring Tulun.

NORTH CENTRAL AND NORTHWEST AFRICA

All of the original Moslem provinces in north Africa were now more or less independent with separate rulers. After 800 Tunisia was ruled by the Aghlabid Dynasty until the end of the century when they were overthrown by the Kutama, a Berber tribe from Kabylia. Morocco, under the Idrisids, had founded a Shi'ite caliphate in 789 which had carried on into this century. Still farther west, just on the Mediterranean side of the Straits of Gibraltar, were the Rostemids. (Ref. 2, 3) (Please see map in connection with CENTRAL EUROPE, this chapter.)

There were three major trade routes across the Sahara at this time. One went from Fezzan to Kanem, running north of Lake Chad;

a second went from Gao, on the Niger bend, to central Maghrib; and the third ran from the western Maghrib to Ghana. (Ref. 4)

SUBSAHARAN AFRICA

Commerce across the Sahara brought gold and slaves to the Mediterranean and stimulated the early Negro states of the sub-Saharan regions. Ghana had few natural resources of its own and its wealth was derived from levies imposed on this trade across the desert. We have seen in previous chapters how Jenne-jeno developed as a trade center on the Niger. By 800 it had perhaps 10,000 people and an extensive riverine trade with the Timbuktu region. (Ref. 5) To the Arabs, the ruler of Ghana was reputed to be the richest and most powerful monarch in all the Biladas-Sudan (Land of Blacks). Around

Lake Chad the empire of Kanem-Bornu developed about the beginning of this 9th century and survived for a millenium. This kingdom, founded by Zaghawa nomads, was originally only one of the seven Hausa city-states, each protected by strong city walls and excelling as manufacturers and long distance merchants. (Ref. 6, 7)

On the east coast of Africa a great wave of trading activity swept the countries bordering the Indian Ocean, resulting in a string of city-states along that coast, most of them founded by Muslims from the Persian Gulf and some from southern Arabia. Bantu-speaking Negroes soon joined them to produce a distinct culture and language (Swahili). Farther south in Zimbabwe, the Shona and particularly the Karangas sub-group, continued in this century to develop agriculture, stock raising, gold and copper trading and the building of large stone edifices. They probably originally came from iron-rich Katanga and had an advanced knowledge of iron mining and metallurgy. They soon became the overlords of the indigenous Gokomere and Leopard's Kopje people as the Rhodesian plateau became a beehive of gold, copper and iron production. The products went to the Arab merchants on the coast. The Shona civilization lasted until A.D. 1500. (Ref. 8, 9, 10)

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Africa: A.D. 901 to 1000

AFRICA

NORTHEAST AFRICA

The off-shore islands of Ethiopia thrived on the export of Abyssinian slaves. Some apparently escaped to settle in Danakil and Somali, there to intermarry and become converted to Islam. Inland royal power was assumed in the mountain region of Lasta sometime after A.D. 940 by a non-Semitic Zagwe Dynasty. While these people became Christianized, Semitic farmers expanded southward along the forested spine of Ethiopia to modern Addis Ababa. At the same time Sidama tribesmen invaded from south and east. (Ref. 1, 2)

In 905 the Turkish Tulunid Dynasty of Egypt gave way to the Ikhshidids who, in turn, were again subject to the Abbasid caliphate of Damascus although this domination was short lived as the empire began to split. At the end of the century the Fatimids moved in from northwestern Africa to take control of Egypt. They were a branch of the Isma'ilites, claiming descent from Mohammed's daughter, Fatima. Sugar cane was now grown in Egypt, with the sugar produced by an advanced process. (Ref. 3, 4)

NORTH CENTRAL AND NORTHWEST AFRICA

We noted in the last chapter that the Aghlabid Dynasty had fallen to the Berbers. In this century these victors welcomed Ubaid Allah, a Shi'ite "Mahdi"¹ from Syria, who used the Berber armies to establish a new north African, Fatimid Dynasty. They destroyed Tahert and dominated Fez, eventually establishing their capital in Cairo as they assumed control in Egypt. (Ref. 5) The Moroccan Idrisids resisted for some time, but with the Spanish Omayyids attacking also from the north, the Moroccans finally fell to the Fatimids. (Ref. 6) As the

Berbers expanded northward in Morocco and the Arabs came westward along the coast, there was a shift in the balance between the sedentary cultivators and the nomadic pastoralists. Nevertheless, Morocco, Algiers and Tunisia had a renewed prosperity with the establishment of great trade routes across the Sahara and increased commerce with Spain. In the desert, itself, however, cruel famines were suffered by small towns and warfare contributed further to their demise. (Ref. 7, 8)

SUBSAHARAN AFRICA

By the end of this century most of Africa was out of the Stone Age. (Ref. 9) It was the time of the apogee of the Kingdom of Ghana with its capital at Kumbi and extending from near the Atlantic coast almost to Timbuktu. It was essentially Negro, consisting of a group of federated tribes with a fairly well developed culture. Writing of the wealth and wisdom of this African kingdom, the Moslem Ibn Hawqal said that Ghana boasted that its people had hoards of gold and "the wealthiest of all kings on the face of the earth"². The recently excavated city of Jenne-jeno reached the height of its development and by the end of the century may have had close to 20,000 people. This and satellite communities had penetrated the marketplace of North Africa. Goods, produce and gold flowed north via river and caravan while Saharan salt and Mediterranean glass beads came south. (Ref. 10)

Pressure from the Berbers now forced the city-states of Chad to unite into a kingdom called Kanem-Bornu, or the Kanuri Empire, founded by a desert people and having the longest surviving dynasty in history, not being overthrown until the 19th century. A trans-Saharan slave trade running from west Africa east to the Arabs began in this century and lasted for hundreds of years. (Ref. 12, 13, 14) The Arabs began to colonize the east coast as far south as Zanzibar but never reached or knew of Madagascar, in this century. (Ref. 15) Ancestors of present day Kikuyu tribes migrated into Kenya from the south. They were Bantu-speakers who were in the process of spreading out from the Congo in the transition period from Stone Age hunting to the Iron Age and agriculture. (Ref. 16, 17) Zimbabwe continued to be occupied by the Shona people who traded in copper and gold.

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

1. "Mahdi" is a Moslem title of an expected spiritual and temporal ruler destined to reign righteously over the world
2. Quotation from historical map of the National Geographic Society, (Ref. 11)

Africa: A.D. 1001 to 1100

AFRICA

NORTHEAST AFRICA

In Ethiopia there was a revival of power under the Cushitic-speaking Zagwe Dynasty. Old documents link King Yimrha-Kristos to the Egyptian Coptic patriarchs Cyril II (1,077-1,092) and Michael (1,092-1102). Meanwhile the Semitic component of the country spread westward from Addis Ababa to include Lake Tana by 1,100. (Ref. 1) Nubia, in the region between the 1st and 4th cataracts of the Nile, continued to have two separate kingdoms, one the Kingdom of Nubia and the other, farther south, the Kingdom of Alwa. (Ref. 2)

Egypt remained an Arab, Moslem state under the Fatimid Dynasty throughout this century. As noted in the last chapter, these Shi'ite rulers had invaded from the west, having first had a base in Tunisia and an army of Berber tribesmen. They developed Cairo as their capital.

NORTH CENTRAL AND NORTHWESTERN AFRICA

Morocco and Tunisia had a continuing change of emirates and the situation was complicated by the return of hordes of Spanish Moors, who were being run out of Spain. When the Berber Zirid Dynasty tried to become independent of Cairo, the Fatimids sent armies of Bedouin Arabs against them and they succeeded in devastating the region and its economy. At about that same time, on an island just off the Moroccan coast, Ibn Yasin, with some Sahara desert followers, formed a dedicated band and with thousands of camel men, launched a "jihad"¹, driving eastward, overrunning all western, north Africa (the Mahgrib), some of Ghana and even part

of Spain, establishing the Almoravid Dynasty². A concept of Moroccan unity was born and Marakesh was developed as the capital of this new ruling group in 1062.

SUBSAHARAN AFRICA

The acme of the Ghana Empire may have occurred in the first half of this century. The inhabitants were the Negroid Soninke (Sarakole) branch of Mande-speakers. They dominated well over 100,000 square miles of territory with an efficient administration and an army of 200,000, including 40,000 bowmen. Their horses had gold trappings and their guard dogs had gold collars. Al Bakri, writing in 1067, said that the houses were of two stories, with warehouses on the ground floor and living quarters above. The Soninke had their own pagan religion, but they allowed Muslims in their territory. In the second half of the century drought, famine and pillage of the capital city by the Almoravids (1076) started the empire into decline. The invading Moslems were helped by non-Moslem Berbers who needed the salt mines of Ankar. It is probable that the city of Jennejeno, whose development we have followed in previous chapters, participated in this decline as it known that its population decreased, despite new commerce with North Africa. (Ref. 4) As Ghana fell, successor states included Diara, Soso, two Mossi states and Manding, or Mali, formed by the Malinke Mande. The ruler of the latter was a Moslem living in the rapidly growing city of Timbuktu. Subject to Mali was an adjacent empire in the middle Niger called Songhoy and at about this same time a people called the "Telem" took over the old abandoned granaries in the caves of the Bandiagara cliff in Mali and used this as a burial place for their dead. (See page 234, volume 1). One cave alone has been found to have 3,000 skeletons. (Ref. 5)

By this time most of the desert nomads had been converted to Islam, which had spread south from the Maghrib into the states of the Sudan with Muslim merchants as they crossed the Sahara. This dangerous trans-Sahara trade carried luxury goods, eventually firearms and salt, a vital element in the diet of tropical countries. On the reverse, north trek went gold, leather work and slaves. (Ref. 6, 7, 8, 9) This was the era when the one-humped camel (dromedary) really became of greatest importance in the desert. These hot, dry-country animals could carry 700 to 800 "light pounds". A caravan of

6,000 camels could carry 2,400 to 3,000 tons or the load of 4 to 6 medium sized sailing ships of that period. (Ref. 10)

Farther east there was the country of Kanem, which had no gold but did a brisk business of exporting slaves. In this century Kanem accepted Islam and under Mai Dunama I, the borders of the state were extended northward across the desert to Fezzan and westward into Hausaland. Dunama is said to have had 30,000 horsemen, cultural and commercial links with the Middle East and to have maintained a rest house in Cairo for pilgrims going from Kanem to Mecca. (Ref. 11, 12)

In the dense rain forest of central Africa, Pygmoid and Bushmanoid hunters continued to be present and the Bantu-speaking Negroids had already been migrating down the rivers from the Sudanic belt to that area and were gradually spreading east and south. The Luba people may have been well established in the Lake Kisale region of northern Katanga for three centuries. The Kenya highlands and adjoining northern Tanzania were also already well populated. The original inhabitants, as previously noted, were Caucasoids called "Azanians" and by tradition were tall, bearded and red-skinned. Gradually through the centuries, however, these had been gradually absorbed by the Nilo-Hamites and the Bantu-speaking Negroids. The latter were also filtering into the south into the territory of the Bushmen. Some buildings were erected at Zimbabwe in this century, beginning the development of another great empire which would flower some centuries hence. (Ref. 13, 14)

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[270] BUTZER, KARL W., "Empires, Capitals and Landscapes of Ancient Ethiopia", *Archaeology* Vol. 35, No. 5: 30-37, Sept./Oct. 1982.

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[175] READERS DIGEST, *The Last Two Million Years*. (Readers Digest Assoc., Inc., London New York, etc. 1973).

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[83] HALLETT ROBIN, *Africa to 1875*. (The University of Michigan Press, Ann Arbor, 1970).

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[83] HALLETT ROBIN, *Africa to 1875*. (The University of Michigan Press, Ann Arbor, 1970).

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[175] READERS DIGEST, *The Last Two Million Years*. (Readers Digest Assoc., Inc., London New York, etc. 1973).

1. This means a "holy war"

2. In a newer terminology this is called the Murabit Dynasty. (Ref. 3)

Africa: A.D. 1101 to 1200

AFRICA

NORTHEAST AFRICA

This was a period of building in the Lasta Kingdom of Ethiopia, with imported Egyptian artisans and materials for church construction. One of the greatest of the Lasta Zagwe kings was Lalibela, who came to power in 1195. Ethiopian records of this era were not kept indefinitely because later dominant dynasties considered the Zagwe an "usurping" one. (Ref. 1) The cathedral built about A.D. 700 in Qasr Ibrim, Nubia, was originally dedicated to the Virgin Mary, but after a raid in 1172-1173 by Shams ed-Dowla, brother of Saladin, it was converted into a mosque. Its ruins remain today as a small island in Lake Nasser. (Ref. 2)

The death throes of the Fatimid caliphate came about not by Christian Crusaders but by the expansion of Nureddin and his Zangid Sultanate from Syria. Nureddin continued to live at Mosul and let Egypt be ruled by a Kurdish general, Saladin, who then proceeded to set up his own Ayyubid Dynasty in 1174. Islam glorified in the integrity and justice of his rule and even Christendom acknowledged him as a gentleman and scholar, even though a foe. At his death in 1193 his realm again became divided. (Ref. 3, 4)

NORTH CENTRAL AND NORTHWEST AFRICA

The Norman, Roger of Sicily, annexed the Zirid Emirate of Tunisia about 1153, but as Saladin took over Egypt, a Shi'ite empire was created farther west by a Berber tribe led by another supposed "Mahdi" and this Almohade Dynasty¹ replaced the Almoravids and gave Barbary its finest hour. They defeated the remaining Zirids and

finally even ran the Normans from Tunisia. (Ref. 5, 6)

SUBSAHARAN AFRICA

The Tellem people continued to flourish in Mali. Men wore robes made of cotton strips sewn together, with waistbands or leather aprons and cotton caps. The women wore short fiber aprons, occasionally with the front pulled back between the legs to fasten to a waistband behind. They had leather sandals decorated with incised geometric designs, leather bags and knife sheaths. Personal ornamentation included beads, iron, wood or bronze pendants, iron and leather bracelets and cylindrical quartz plugs worn in noses or ears of both sexes.

Ife, a kingdom south of Nok (Nigeria), flourished from 1100 to 1500 and produced the greatest artistic creations of tropical Africa. Ife bronzes were cast by the "lost wax" process which is still in use for some purposes today. (Ref. 7) Timbuktu was a trade center of this century, servicing the empires of Manding and Songhoy. Great stone buildings were erected in Great Zimbabwe as the Shona people made it the capital of their powerful state. (Ref. 8, 9) (Please also see the 15th century C.E. where there is a summary of several centuries of activity in this part of Africa).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[35] COBB, CHARLES E.,JR., "After Rhodesia, a Nation named Zimbabwe", National Geographic 160: 616-651, Nov. 1981).

1. In newer terminology this is the Muwahid Dynasty

Africa: A.D. 1201 to 1300

AFRICA

NORTHEAST AFRICA

In the highlands of Ethiopia there were several Muslim sultanates. In Lasta, King Labibela, who gave his name to the capital city, is credited with 11 monumental rock-cut churches. Egyptian Coptic refugees were allegedly welcome here, as Labibela attempted to establish a "new Jerusalem". Juniper trees were planted (in place of cedars), a local stream was named the "Jordan River" and a grove of olives became the "Mount of Olives". (Ref. [1](#)) Nearer the coast this rejuvenated dynasty line from the old Axumite kings gave way in 1270 to a new family claiming to be a restoration of the old Solomon line, calling themselves the Solomonid Dynasty. These Amharic-speaking people developed a true Ethiopian culture and came in conflict with the Muslim coastal states on the Horn of Africa, notably Adal. The Solomonid ruler became known as the "King of Kings" and had many vassal kings under him. Christianity in this area then began to absorb many Judaic and pagan practices from the mixed peoples living there. (Ref. [2](#), [3](#), [4](#))

Nubia was invaded by Sultan Baibars of Egypt in the middle of the century and a puppet ruler was set up and tribute paid to the Mamluks.

The descendant of the Kurd, Saladin, ruled Egypt in the first third of this century and one of the greatest achievements of the time was the building of the Mansur Hospital in Cairo, a very large institution which had separate wards for different diseases such as fevers, eye problems, female disorders, etc. Ruling the country in about 1238, Sultan al-Salih, to augment his Turkoman army, purchased white slaves from the Mongols as they crossed southern Russia. These slaves were mixtures of Cumans, Circassians and Alans and they

became the most powerful cavalry unit in the Egyptian army and were known as *mamluks* from the Arabic verb "to own". The practice of taking such men as royal bodyguards had been started by the caliphs of Baghdad, who could not trust even their own relatives. The last Egyptian sultan of the Kurd Ayyubid line died in 1249 and after a few murders, one of the white slave Mamluks named Aybak married Queen Shajar al-Durr, founded the Burji Dynasty and became the first Mamluk sultan of Egypt. After seven years Aybak made the mistake of trying to add a new wife, the daughter of the ruler of Mosul, Iraq. Queen Shajar al-Durr murdered him in his bath, but she, in turn, received the same type of death three days later from Aybak's loyal concubines. (Ref. 5, 6)

The Mamluk General Baibars (also Baybars) led an army through Palestine, thwarting the last of the Crusaders, and then went on to defeat his former captors in a great battle at Ain Jalut in 1260 and the Mongol advance was stopped. As a result of these victories Baibars was elevated to be sultan and he proceeded to be one of the most cruel, ambitious and yet able of the Mamluks. He traded ambassadors with the Mongol Berke in Russia and persuaded him to wage war against fellow Mongol Hulegu in the Middle East, thus pinching the latter's forces between them. He brought the last Abbasid caliph to Cairo from the destroyed Baghdad, set him up as a puppet and then proceeded to form a strong administration, reconstruct fortresses, roads, bridges and canals, although late in the century the old Necho canal from the Nile to Red Sea was filled in. He had a regular postal service between Egypt and his domains in Syria. At the height of his career, in 1277, he was poisoned. With the subsequent reign of Qalawun (1279-1290) the Bahri Mamluk Empire reached its height and the prosperity continued with his family successors until the middle of the next century. It was a period of a full treasury and resulting commissioning of great works of art, both secular and religious, including great palaces and mosques, manuscripts, glass vessels inlaid with gold and other treasures. (Ref. 7, 8)

NORTH CENTRAL AND NORTHWEST AFRICA

All of north Africa had changes of regimes during this century. When the Baghdad Caliphate was destroyed by the Mongols, the Hafsid Dynasty took the title of caliph in Africa in A.D. 1259 and

assumed control of Tunisia and some of Morocco. In the latter area the Almohades were in collapse because of their losses in Spain to the Christians, and they were displaced by the Marinid Sultan of Fez in 1269. Both Fez and Marrakesh were great Moroccan cities, exceeded in population by very few European cities of that time.

Algeria was taken over by still another dynasty, the Zujaniids. All of these north African states contributed to trans-Saharan trade and the crossing of the great desert by these medieval Arab merchants was a tremendous undertaking. Caravans could cover 200 miles in a week but were subject to black-veiled Taureg pirates and if wells and oases failed, men and beasts alike could perish. (Ref. [10](#), [11](#), [12](#))

The area was not devoid of intellectual activity. Hasan published tables of sines for each degree and Nasir ud Din wrote a treatise on trigonometry. In addition the whole science of botany was revised by these Arab-Berbers.

SUBSAHARAN AFRICA

In western Africa in the great bend of the Niger River, several states vied for supremacy. At the beginning of the century, Sumanguru, greatest of the rulers of Soso, next to the Mossi states, plundered the old capital of Ghana, Kumbi, and in 1224 conquered and annexed Manding. This situation was reversed 11 years later, however, when the Mandingos defeated the ruler of Soso and re-established independence, in a decisive battle of Kirina. This cleared the way for the creation of Mali as a successor state to Ghana and it became the second great empire of the western Sudan, extending from the Lower Gambia and Senegal rivers to the Niger-Benue junction. In contrast to the Ghana homeland, which was in a semi-arid sahil, the Mali center was in a fertile agricultural land a little to the south and they even had better access to gold. Sundiata was the warrior hero of these conquering Malinke Mandingos. Exactly where the recently excavated city of Jennejeno fits into this new empire is not clear, but it is known that this ancient city was already starting to decline in this century. The Tellem territory near the Bandigara cliff at the bend of the Niger apparently was never governed politically by the Mali and evidently offered refuge.

In Ife, Nigeria, superb sculptured heads reached a peak production in this and the next century. It was the holy city of the

Yoruba tribe and home of its priest-king, the Oni. Some of the sculptures are believed to represent former Onis. (Ref. 13, 14, 15, 16)

In the region of the southern Congo was the Lunda-Luba Empire. The trading states on the east coast were in a golden age with the Indian Ocean becoming a vast Muslim lake. From Somalia in the north to Mozambique in the south, dozens of coastal states flourished with between 30 and 40 medieval city-states, many on islands adjacent to the coast. Kilwa, on the coast of southern Tanzania, was the greatest medieval east African city, with caravans arriving there with ivory from around Lake Malawi and dhows coming up the coast from the south with gold, much of which came from Zimbabwe. From Kilwa great oceangoing ships took off for Arabia, India and China on the monsoon winds. (Ref. 17) Although the ruling dynasties of those eastern states were Muslim, the populations were mixed Arabs, Persians, and indigenous Bantu. This resulted, in time, in the distinctive east African Swahili Culture. The political control extended only a few miles inland and the interior peoples, themselves, brought the wealth of east and central Africa to the shores of the Indian Ocean. Slaves with tusks on their heads plodded for hundreds of miles to the coast and then were sold with the ivory. (Ref. 18)

Slightly inland and going from north to south, we should mention the rise of the Bantu kingdoms, especially Bunyoro, the largest at that time, in the area of present day Uganda. (Ref. 19) Farther south, in the Great Lakes area the cattle herding Cwezi kings held sway. (Please see also the summary after the section on AFRICA, in the 15th century chapter). Continuing south, the leading state of central Africa was governed by Mwana Mtapá and covered a 700 mile stretch of the Zambesi Valley.

Mtapá was also the heir to an even older Shona Dynasty which had built the fortress of Zimbabwe, the ruins of which still stand today. The Shonas formed loose federations to control gold mining regions and trade routes to the coast. There is some evidence, however, of a burning of the original Great Zimbabwe dwellings in this century. (Ref. 20, 21)

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

1. "Bahri" means the "sea" and was the name given to the Mamluks who were stationed on the Island of Roda in the Nile by the last Kurd Sultan, Najm al-Din Ayyub. (Ref. 9)

Africa: A.D. 1301 to 1400

AFRICA

NORTHEAST AFRICA

The Somali have been documented as being in the Horn of Africa in this 14th century but they may have actually arrived much earlier. Although commentary and archaeological material is meagre, it is probable that the homeland of these Somali, as well as the Galla, Danakil and Sidama lies in the Rift Valley of southern Ethiopia. They were all speakers of eastern Cushitic languages and for all life was hard, with frequent bloody feuds adding to their troubles. The Solomonids from Shoa continued their civilization in Ethiopia, with Emperor Amda Siyon (A.D. 1314-44) expanding toward the south and then defeating the Muslims of eastern Ethiopia in A.D. 1332. A reformed monastic movement evangelized frontier districts and churches were built on mountain tops. (Ref. [1](#), [2](#))

The real power in northeast Africa, of course, was Egypt, where the Mamluk Dynasty continued to reign with relative stability and with increased aggressiveness as they even conquered Armenia in 1375. Cairo was the greatest city and its minor art, enameled glass and pottery work was exceptionally fine. One of the greatest Bahri Mamluk patrons of the arts was Sultan Hasan (1347-51 and 1354-61), who is remembered for his school and mausoleum which was decorated with carved stone and stucco, marble revetments, inlaid metal doors and gilded glass lamps. His successor, Shaban II, commissioned fabulously illuminated Korans, some in blocks three feet high. Each Mamluk sultan was always surrounded by a group of Amirs, also former slave Mamluks, and these in turn, also always had a new group of slave Mamluk bodyguards. The latter could earn their freedom and when they did, they were sent as governors and commanders to various provinces and given land for

themselves. (Ref. 3) Cannons were in use in Cairo and Alexandria in the latter half of the century. Ibn Batuta, travelling to Cairo, described 12,000 water carriers and thousands of camel drivers plying for hire¹.

In this 14th century the majority of Egyptians, for the first time, were Arab-speaking Muslims and this must have resulted from many intermarriages with Bedouin Arabs. It is possible that the Black Death among the original native population may also have been a factor in this ethnic shift, as about 1/3 of the inhabitants died in the first attack of that plague between 1347 and 1349. (Ref. 5)

In 1381 Malik al-Nasir Barquq, an amir of the Burji Mamluks, overthrew the east Bahri sultan and started a new dynasty, the Burji, dedicated to luxury and intrigue and violence, which soon led to social decay. This administration debased the coinage, taxed necessities and laid such heavy duty on India-European trade that Europe had to find a new route to India in the next century.

NORTH CENTRAL AND NORTHWEST AFRICA

A creditable civilization remained in North Africa, although between the Marinids of Morocco and the Hafsid of Tunisia there was endless strife, particularly as to who should receive the homage of the intervening Ziyenids of Algeria. In 1360 the latter became independent and the Hafsid dominion divided into the Hafsid Emirate of Constantine and the plain Hafsid Caliphate, running to the east along the coast as far as Egypt. The Marinids of Morocco flourished as much from piracy as through commerce. (Ref. 6, 7)

At Timbuktu, far south across the great desert, there was a library of some 1,600 volumes, a famous university and beautiful mosques. The geographer Muhammad abu Abdullah ibn Batuta, after traveling about 75,000 miles, wrote a book about this area and Abd-er-Rahman of Tunis, perhaps the greatest historian of all time, wrote many treatises on the rise and fall of civilizations in general, anticipating and stimulating Arnold Toynbee in many respects. At the end of this 14th century repeated nomad conquerors from the fringes of the Sahara began raids into North Africa, starting a period of decadence.

SUBSAHARAN AFRICA

While Europe suffered the Black Death and the Hundred Years War, black kingdoms of the Sudan were flourishing with great wealth and brilliant artistic accomplishments. Competing with the one at Timbuktu, a university at Jenne attracted students from far and wide. (Ref. 8) The Muslims of Mali had "a greater abhorrence of injustice than any other people", said Ibn Battuta² The Mali emperor, Musa I, made a pilgrimage to Mecca, taking with him a great train of servants, courtiers, slaves and 3,800 kilograms of gold, sufficient to depress the price of that metal on the Cairo exchange. But about 1350, the expanding Empire of Songhai began to take over Mali territory, continuing to support their city of Timbuktu, but creating a new capital at nearby Gao. Between Songhai and Kanem-Bornu were the Hausa city-states. Of these, Kano and Katsina particularly were rich and industrious, with a specialty production of leather goods which was called "Moroccan" leather in England. If continued in the present region of Nigeria. On the Gulf of Guinea several kingdoms arose in the area now known as Ghana. The Yoruba people, who settled the tropical rain forest of the Niger Basin, built up powerful kingdoms of Benin and Oyo. (Ref. 9)

Many wealthy city-states appeared on the east coast of Africa in this and the next century. The city of Zimbabwe has been mentioned previously and this remained a very important religious, political and trading center of the Shona, a Bantu-speaking people among which building and pottery styles reached a peak in this and the 15th centuries. Stone walling was improved, the old burned out stone buildings were rebuilt and an attractive edifice 800 feet long and 32 feet high was constructed for some unknown purpose. (Ref. 10) The Shona are still today the majority people of that country.

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1. As noted by Braudel (Ref. 4), page 481
2. As quoted in Reference 154 by the National Geographic Society, Cartographic Division

Africa: A.D. 1401 to 1500

AFRICA

NORTHEAST AFRICA

This part of the world experienced no great change from the previous century. The Solomonid Dynasty in Ethiopia was at the height of its power and Amhara colonists continued to invade southern Shoa, Gojam and the base of the Semien Mountains. The Moslems controlled all the Red Sea coast, however, and confined the Christians to the Ethiopian highlands. Even Nubia became Moslem. The Caucasoid Azanians in the northeastern interior felt the impact of migrating Bantu speakers and the arrival of Nilo Hamites with their Cushitic languages, such as Galla, influenced the region. These Nilo-Hamites appear to have been a mixture from three origins, - Nilotic Negroids of the upper Nile, Cushitic Sidama of Ethiopia and a third of origin unknown. (Ref. [1](#))

The Mamluk Dynasty continued in Egypt, but with declining power and influence.

It must be recalled that this ruling group were originally warriors from the Caucasus region and this communication with Black Sea ports allowed recurrent epidemic disasters in Egypt. Disease, helped probably by oppression and bad government, resulted in depopulation and impoverishment. The last great Mamluk sultan was Qaitbay (1468-96), an avid builder, who restored some of the greatness of the old Bahri period of the 13th century, but the decline of the empire was only temporarily halted. (Ref. [2](#), [3](#))

NORTH CENTRAL AND NORTHWEST AFRICA

The coast still had a high cultural level and now acted as a refuge for the Moors fleeing from the persecutions in Spain. With the

decline of the Moroccan Marinids and after the Portuguese seized Ceuta, opposite from Gibraltar in 1415, the Hafsids gained at least titular supremacy over all of western North Africa for while. By 1478 the Wattasid Sultanate developed in the far west and the Ziyamid Emir existed between the Wattasid and the slipping Hafsids. (Ref. 4, 5) By the end of the century, the Arabs had established sugar cane in the Moroccan Sousse and from there it soon spread on into the Atlantic to Madeira, the Canaries and the Azores.

SUBSAHARAN AFRICA

Just southwest of the Sahara it was the heyday of the Songhai, who had great mosques at Timbuktu and Jenne and were famous for their piety and scholarship. Relationships of this particular empire with Morocco were not cordial because of competition for the trans-Saharan trade and the valuable salt mine of Taghaxa in the northern desert. This Songhai Empire came into its zenith about 1464, when a warrior king, the Sonni Ali, came to the throne of Gao in the middle Niger and by his death had extended his rule over the whole western Sudan. He had cavalry, levies of foot soldiers and flotillas of war canoes, which patrolled the 1,000 miles of the navigable Niger. It was he who ended the Mali Empire of Ghana. (Ref. 6)

In the forest area of west Africa were the Edo, who developed great bronze sculpture in the Kingdom of Benin, near the coast of Nigeria. Benin was a walled city, 25 miles around, with wide, straight streets and spacious houses of wood. In Ife, in southwest Nigeria, one of these bronze heads was definitely made by the lost wax technique. Seven Hausa city-states, including Kano, Zaria, Gobir and Katsina had become flourishing commercial centers in the Sudan. Agriculture was the basis of society, with trade routes through the Sahara. Guinea, existing out on the southwest corner of the bulge of west Africa, would, at first glance, appear to be a site early exploited by Europeans, but actually it remained isolated for a long time because European ships could not return from there directly up the west African coast. Because of the Atlantic currents and wind, they had to go straight out to the middle Atlantic before they could turn and go north again. The people of Guinea were modest farmers and fishermen, with some local trade involving salt and dried fish. Deeper inland, they had some contact with the

Sudan. This small country has a rain forest, but it is not deep and is traversed by the magnificent waterway, the Niger. Near the end of the century the Portuguese did arrive to establish a trading post. A little to the east, the foundations had been laid for the famous forest states of Oyo and Akan, as well as Benin, which we have described above. (Ref. [7](#), [8](#), [9](#), [10](#)) The Sudan had gold mines, ruled by village chiefs and the workers approached the condition of slavery. (Ref. [11](#))

In central Africa gold was plentiful and the king of the Congo maintained such opulence in his capital that visiting Portuguese were amazed and made haste to make an alliance, not a conquest. About 1441 they brought Christianity to western, central Africa, going even 200 miles up the Congo to convert the Congo king. Incidentally, they brought back gold. (Ref. [12](#)) Living in the great bend of the Congo, in the plateau north of Stanley Pool, were the Teke people in a number of chiefdoms collectively known as Mongo. (Ref. [13](#))

Farther east in the lake country between Tanzania and Zaire there appeared in this 15th century the Batutsi, a tall, warrior people, perhaps originally from Ethiopia. They invaded and subjugated the native Bahutu in Burundi. In Kenya, the nomadic Masai entered from the north, joining the Kikuyu already there and then some Luo entered from the west. The Kikuyu were Bantu-speakers and related groups established themselves in parts of the Transvaal and Natal as well as the lower Congo and Zambezi by about A.D. 1500. Kitari was an Hamitic kingdom north of Lake Victoria. (Ref. [14](#), [15](#))

In the meantime Muslim Swahili city-states had been established all down the eastern coast of Africa and there was special interest in the gold of the Zimbabwe (Rhodesia) region. The Bantu-speakers had migrated southward along the spine of east Africa with a new war-like ethos and a pastoral life, dominating other tribes and reaching the Zambesi River by the end of the century. Arab trade inland actually declined, because these Bantu were less amenable to exploitation than their predecessors, chiefly Bushmen. By 1440 King Mutota of the Rozur clan in the Katanga nation assembled an army which completely dominated the Rhodesian plateau within 10 years. This period has been described by Charles Colt, Jr. (Ref. [16](#)) as a splitting of the Shona state into two rival kingdoms. At any rate, as ruler of an empire, Mutota then took the title of *Mwene*

*Mutapa*². The Portuguese wrote this as *Monomotapa*, which soon became the name of the empire, itself. The stone birds, which have been found in the ruins of old Zimbabwe, were probably important in the religious ritual of that theocratic empire. The realm was soon subject to revolution and succession wars and this resulted in many "ups and downs" in its history and in its buildings. From the beginning in 1440 on for 400 years, however, there was a progressive evolution of artistic and technical skills in that society. The Monomatapa ruler was considered divine and his subjects would hear him but not look at him and had to approach him on their stomachs. He lived amid great pomp, but when he became seriously ill or very old he was obliged to take poison. At the end of the 15th century the entire nation moved hundreds of miles north, apparently because the local salt supplies of Great Zimbabwe had been exhausted. Their extensive stone buildings, which still exist, were abandoned at that time. (Ref. [17](#), [18](#), [19](#), [20](#), [21](#), [22](#))

Explorer Diogo Cao claimed Angola for Portugal in 1483 and the slave trade was opened up in earnest. In the next four centuries, some 3,000,000 slaves were sent to Brazil by the Portuguese. At the very tip of South Africa the people seen when the Europeans first explored the area were the Bushmen, who were hunters and gatherers, and the Hottentots (Khoikhoi), who herded sheep and cattle along the coastal regions. As noted previously, these were not Bantu-speaking people. (Ref. [25](#))

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2. In the Shona language, "Mwene Mutapa" means "Master Pillager". (Ref. [24](#))

Africa: A.D. 1501 to 1600

AFRICA

NORTHEAST AFRICA

The horn of Africa now became the site of bitter conflict, originally a trading rivalry, but soon a long religious and political fight between Christians of Ethiopia and the Muslim coastal states. The sultan of Adal (now between Somalia and Ethiopia), Ahmad Gran, attacked into the heartland of Ethiopia in the 1520s with the help of Danakill and Somali nomads. The Christian Amhara nation dominated the Ethiopian plateau at that time and sustained a flourishing ecclesiastical art. (Ref. [1](#), [2](#)) The pope sent Portuguese soldiers, led by Christopher da Gama (Vasco's son), to help against this Muslim conquest in a 20 year long war. As a result of that help by Portuguese, Ethiopia came under Catholic influence for the first time, as their own Coptic Church had been declared heretical some 1,100 years previously. The Jesuits with the Portuguese tried to convert the Ethiopians, apparently without too much success, as all Catholic missions were expelled by the next century. But the old Christian empire was so exhausted by the warfare that the pagan Galla, from the south and east then invaded and settled in the country, with general anarchy resulting. (Ref. [3](#), [4](#), [5](#))¹

[1](#)

The southern farmlands of Ethiopia, in the region of Bale, was occupied by Oromos, most of whom were Moslems

In what is now the country of Sudan, the Funj people appeared early in this century, defeated the Arabs and established a powerful kingdom around the capital Sennar, on the Blue Nile. The people, known as the "Black Sultans" of eastern Sudan eventually adopted

Islam. (Ref. 6)

In Egypt the last Mamluk sultan was Qansuh al-Ghuri, a scholarly man coming to the throne late in life. Decadence, rivalry and corruption continued in his regime. To add to the Mamluk troubles, their trading ports were now by-passed by the Portuguese trade-routes around the Cape of Good Hope and the Egyptian treasury was soon empty. The stage was set for the advance of the Ottoman Turk, Selim I, who defeated the Mamluk army in Syria and advanced to rule Egypt and Hejaz (Saudi Arabia). (Ref. 7)

NORTH CENTRAL AND NORTHWEST AFRICA

Estimates of the population of North Africa in this century vary from 2,000,000 to 3,500,000. (Ref. 8) After da Gama's voyage around Africa at the end of the preceding century, the economic ascendancy of North Africa ended. Science and philosophy lost out to both Christianity and Islam and the area began to decline to the status we know today. In the early century, both Spain and Portugal gained control of some Moroccan ports, but in a great battle of Alcazarquivir in 1578, King Sebastian of Portugal was killed and the Moroccans preserved their independence for another half century, usually ruled by factions of the Sharifian Dynasty. (Ref. 9) That country, alone of the north African states, remained independent of the Ottomans. At the height of its power, in about 1590, Morocco invaded the Songhai Empire and set up a client state in the Sudan, disrupting the economy of that entire region. (Ref. 10) Throughout the century local fairs were set up in connection with local saints and pilgrimages. One of the largest was among the Gouzzoula, south of the Anti-Atlas, looking out over the desert. It survived for hundreds of years. (Ref. 11)

East of Morocco in the Oran-Algiers-Tripoli area a band of pirates roved until captured by Spanish forces using artillery in 1509 and 1510. Then in 1516 a colorful buccaneer entered the picture - one Khair ed-Kin Khizr, called "Barbarossa" because of his red hair. Actually he was a Greek, who had joined the pirates, conquering Tripoli, Tunisia and Algeria and he then offered the Ottoman, Selim I, sovereignty over the area in return for the use of a Turkish army. With the latter he became the hero of western Islam, by ferrying 70,000 Moors from Spain to Africa, raiding Sicily and Italy, landing at Naples and then, with the French fleet, taking Nice and

Villefranche from the Holy Roman Emperor. After all this, he died in bed at age 80 years. The Algiers and Oran area continued to be the haunt of the Barbary pirates until the end of the 18th century. (Ref. [12](#), [13](#))

In the meantime, however, Charles I of Spain (later Emperor Charles V) had re-captured Tunis as part of his war with Turkey, and had installed a puppet ruler. But the Ottomans, with Barbarossa's help, continued to creep across north Africa and gradually once again took over the entire area, with the exception of a few Spanish ports and the Sultanates of Fez and Morocco. In 1571 the Turkish sea power was broken in a great sea battle off Lepanto, by a combined Spanish-Venetian navy. (Ref. [14](#))

SUBSAHARAN AFRICA

Horses have never been used much in Africa. For one thing the animals do not thrive in the tropics and secondly, they remained exceptionally expensive. In this 16th century horses cost three times as much as slaves in central Africa, although in the Sudan the great Moroccan horses were sometimes worth 12 slaves each. (Ref. [15](#)) The huge Songhai Empire, which had been built up by Sunni Ali in the last century, was led early in this century by an even greater man, Askia Muhammad, the Great (1493-1528). There were a number of large commercial cities, such as the old Mali capital of Timbuktu, a town of 6,000 houses with a splendid royal court. The city was multi-racial, with Songhai, Taureg, Moor, Malenki and Fulani, a fact which led to hostility and succession problems in the empire. The predominantly Negro inhabitants were described as superior in wit, civility and industry. Other cities were Jenne and Gao, the latter full of rich merchants. But each century the Sahara was becoming more and more desiccated and life a little harder. To further complicate matters, in 1590 the Sultan of Morocco sent an army of 3,000 men, including Spanish and Portuguese renegades straight south across the desert to wipe out Songhai. Their cannons and muskets won the towns quickly, but in the south where the terrain did not favor open warfare, they could not win, although the war went on for a decade, devastating the country-side and bringing down the empire. Learning, culture and prosperity all disappeared from the region. (Ref. [16](#), [17](#), [18](#), [19](#)) Apparently isolated from the rest of Mali, a people called "Dogon" arrived in

the Bondagara cliff region to gradually replace the Tellem, who had lived in the area since the 11th century. The latter had been decreasing in number since the 13th century, however, perhaps because of pressure from the Mali and later the Songhai empires. The Dogon lived in this isolated region, more or less unknown to the western world until about 1907. (Ref. [20](#))

Farther south in Nigeria, the Bini tribe of Benin made magnificent bronzes, using the "lost wax" method and did beautiful ivory carvings for the royal palaces. Ife remained, related to Benin. About Lake Chad it was the apogee of the Empire of Kanem, or Bornu, under Idres III. In the Great Lakes region, Lwo invaders from the north overthrew the Cwezi kings and established the states of Bunyoro and Buganda.. In Uganda the Kingdom of Buchwezi continued. The Watutsi, probably originating in Ethiopia, migrated in the late 16th century to the Lake Kiva region, establishing the Rwanda and Burundi kingdoms. The Kikuya reached Kenya from the south, cut down the forest and started to cultivate the land. (Ref. [21](#)) Farther south, in what later was to become Rhodesia and is now again Zimbabwe, the king of Monomatapa left the original Zimbabwe region to establish a new capital on the northern edge of the Rhodesian plateau. A new dynasty, the Rosvis, soon revived the original area and some of the largest Zimbabwe buildings were then constructed. (Ref. [22](#), [23](#), [24](#)) As the Bantu speakers pushed southward, four main linguistic groups developed. The Nguni group took on many "clicks" of the Khoisan tongue of the Bushmen, as the latter were pushed westward and toward the cape. (Ref. [25](#))

The Portuguese were the first European power to make some inroad into Subsaharan Africa. After having taken Sofala and Kil-wa and founding Mozambique between 1505 and 1507 they ascended the Zambesi River in 1513. And they were not hesitant about taking slaves from the Atlantic side of the continent. In the Congo in about 1526 the Christian King Affonso deplored the depopulation of his country by slavers who were chiefly Portuguese. Inadvertently, these Europeans did Africa another great disfavor by bringing maize from America. That maize grew so rapidly that it led to a great population increase in some areas, so that slave ships never sailed empty. A terrible side effect, however, was the appearance of the nutritional disease, pellagra, which resulted from the exclusive diet of maize, when not supplemented with other foods or prepared with lime water. In the Central and South American homelands of that

vegetable, people not only converted the corn to hominy with lime water, but ate tomatoes, capsicum, peppers and fish, which supplied the vitamins necessary to prevent pellagra. (Ref. 26, 27)

Sir John Hawkins initiated the British slave trade and the Dutch established their first colony on the Guinea coast in 1595. To evaluate the early effect of the slave trade one must realize that in the early years African monarchs profited from the trade, obtaining weapons, cloth, metal and spirits, which increased their wealth. The loss of population of about 40,000 a year was generally economically acceptable and in this respect only, the less populous Angola and East Africa suffered. The larger kingdoms of Ashanti and Dahomey might owe their rise to power to the fire-arms acquired in the slave trade. (Ref. 28)

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Africa: A.D. 1601 to 1700

AFRICA

NORTHEAST AFRICA

In the early century, Ethiopian emperors began to reconsolidate their power among the plains and lush hillsides of Begemder and developed a permanent royal residence at Gondar, after 1636. Emperor Fasilida expelled all Jesuits by 1633, put down the Moslems of Adal, and closed the country to foreigners. Later local wars against both the neighboring Muslims and the Galla, farming people of central and south Ethiopia, resumed and was to last almost two centuries. Galla groups continued to move in Somali, some intermarrying with Arabs and developing a passionate devotion to Islam. Cubes of salt served as both money and food for these people. In Egypt, Turkish control continued. (Ref. [1](#), [2](#))

NORTH CENTRAL AND NORTHWEST AFRICA

This area continued to decline economically and intellectually, Ali Bey made himself hereditary Bey of Tunis, while Algiers and Tripoli became virtually independent states. Politics was violent, with riots, plots, counter-plots, and massacres. 30,000 of Algiers' 130,000 people were Christian slaves of the dominant Moslems. The Barbary pirates continued to work the Algiers and Oran areas throughout this century, using renegade Europeans from Calabria or Sicily, as captains. (Ref. [3](#))

SUBSAHARAN AFRICA

In the western bulge of Africa the state of Ashanti was formed and rapidly expanded to absorb some 30 independent neighboring

kingdoms in the area that is now part of western Ghana. It was the Ashanti who teamed up with the European slavers for the greatest exports of men. Between the Ashanti and the Niger delta the states of Dahomey and Oyo were also established in this century and the entire region was sometimes called "the slave coast". Later some of it was called "the gold coast". The Portuguese had refused to sell firearms to any of these people, but in the middle of the century the Dutch did. On the upper Niger, the black Bambara Kingdom defeated and replaced the old Manding empire about 1670. Brought from America, maize gradually came to be the primary food plant north of the Congo in Benin and among the Yoruba. (Ref. 4, 5, 6)

Bornu continued as the most powerful state of the central Sudan, but interstate wars continued in this and the next century. Kuba was a group of chiefdoms at the south edge of the rain forest which developed a relatively high standard of living and rapid population increase as they received new American crops and techniques, both brought by the Portuguese. The Buchwezi Kingdom in Uganda was succeeded by the Buganda and this had become the most powerful of the Bantu-speaking kingdoms by 1700. Those people carved wooden sculptures and had very artistic palaces, shrines, and houses. Large drums, some 12 feet across, were used as ritual objects, supposedly to communicate with ancestors. (Ref. 7)

Portuguese domination of Swahili cities of the east coast was eliminated by the Arabs of Oman, who had considerable maritime power at that time. A 1690 revolt in Mozambique, led by Changamire, to protest against harsh Portuguese treatment, resulted in the elimination of Europeans there, but they still bought slaves through other ports. (Ref. 8)

In parts of southern Africa, Bushmen still made rock-paintings and engravings of polychrome animals which could compare favorably with any stone-age art of the Sahara or even of western Europe. The best paintings of this and the next two centuries are in the Drakenburg Mountains. (Ref. 9) In 1652 the Dutch East India Company established a rest station near the cape at the tip of Africa, en route to the Spice Islands (Indonesia). Soon slaves were imported for local labor and the local Hottentots supplied beef. Several hundred French Huguenots arrived as settlers also by 1700 so that by the time there was a mixture of about 1000 Dutchmen with some French and the native Hottentots and Bushmen. Neither of the latter are correctly considered to be truly of the Negro race

and the Bantu-speaking, true Negroes were still in the process of migrating slowly down the eastern coast of the continent, although the Nguni were beginning to settle over most of Natal. (Ref. 10)

Although the Europeans were establishing trading posts along the coast of Africa, the mainland of the continent remained self-contained and there were no true European colonies until the end of the next century. Probably the chief reason for the slow penetration up the rivers by Caucasians is that most of tropical Africa's rivers are blocked by huge waterfalls only a short distance from the rivers' mouths. There was some traveling up the Senegal and the Gambiae. As the sugar, cotton, and tobacco plantations developed in the New World, the slave trade from Africa reached substantial proportions. Initially handled by the Portuguese, the trade was progressively taken over by British, Dutch, and French. In 4 ½ centuries some 10 million slaves were brought to the Americas and this slave trade inhibited political, economic, and social development and culled out the sound and healthy population already debilitated by endemic disease. (ref. 11) Early on the Portuguese had a trading station in Angola, but for a while the Dutch took this away, depriving the Portuguese for slaves for the Brazilian plantations. By 1640, then independent of Spain, Portugal recovered Angola and some 14 years later even drove the Dutch out of Brazil as well. The French started some settlements on Madagascar in 1626 and intermarried with various primitive tribes and the Hovas, who had arrived from across the Indian Ocean about 1000 A.D. They were the most advanced of several peoples of Malay and Melanesian stocks, all speaking one language, but with many dialects.

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Africa: A.D. 1701 to 1800

AFRICA

NORTHEAST AFRICA

Local war continued in Ethiopia. James Bruce, exploring that country as he traveled from Massawa to Gondar and thence to the Blue Nile, reported that the Ethiopian Empire was in decline, restricted to the area north of the Blue Nile and was wracked by rebellion. Galla tribesmen had penetrated the countryside and looted at will. (Ref. 1) Egypt was simply a part of the Ottoman Empire until the very end of the century, when Napoleon penetrated it as a gateway to the east (1798). The population had shrunk from about 8,000,000 in the 1st century C.E. to 2,000,000 at this time. (Ref. 2)¹

1

The Oromos in the south, which were the largest group in the country, were subjugated in late century by Menelik II and the land was divided up among the royal family, the church, soldiers of the conquering army and other friends of the crown. The farmers became mere landless tenants

NORTH CENTRAL AND NORTHWEST AFRICA

Hussein ibn Ali founded the Husseinite Dynasty in Tunis and threw off Turkish authority in 1705 and shortly thereafter Ahmed Bey made himself ruler of Tripoli, founding the Karamanil Dynasty, which was to last more than a century. The Spaniards were expelled from Oran for awhile, but they resumed control in 1732. From 1757 to 1789 Morocco was ruled by Sidi Mohammed, who established a

regime of law and order and abolished Christian slavery. By 1800 those north African areas still subject to Ottoman Sultans were the most powerful communities controlled by outsiders on the continent. (Ref. 3, 4)

Copper bracelets, gold dust and horses were all used as currency in that part of Africa. Magnificent horses of the Moors were sold for 15 slaves each. In more southern areas a sheet of paper would obtain a fat, tender chicken. (Ref. 5)

SUBSAHARAN AFRICA

In western Africa, local wars in Ghana finally allowed that state to be taken over by Ashanti warriors, whose king and major chiefs wore regalia made of local gold and imported silver. This forest Akan Empire became supreme in the interior of that part of Africa, trading gold for European fire-arms. They used miniature brass sculptures to measure their gold dust. (Ref. 6, 7) The west coast of Africa was also the source of slaves for the British slave trade to the Spanish colonies in America. Britain had obtained this right as part of the treaty ending the Spanish War of Succession. The Ibo, in Guinea, supplied a greater number of slaves than any other ethnic group, but their internal state was very little disturbed. Late in the century (1787) Sierra Leone, on the west coast, was acquired by the British for the settlement of freed slaves and it was made a separate colony in 1799, the same year as the founding of the British Church Missionary Society. Also late in this period, at about 1776, there was a rise of the Tukolor power in west Africa on the upper Niger, pushing the French out of their Senegal possessions on the river of the same name. The French recovered these in 1778.

Farther east the Hausa continued as a power about Lake Chad. Oyo, south of the Hausa states, got horses from the latter and built up a large cavalry. They may have had as many as 6,000 towns and villages, with almost all of the population speaking the Yoruba tongue. Still farther east, about the Great Lakes, the lake kingdoms of Uganda and Buganda made contact with the outside world, particularly through the Arab and Swahili merchants on the east coast. The Arabs had settled the coastal area of Kenya and came under control of the Sultan of Zanzibar from 1740 on. (Ref. 8, 9)

In the equatorial area, 600 miles northeast of the Kuba Kingdom, were several states of warrior Zande stock and east of them were

the Mangbetu who, although cannibals, had advanced metal work displayed in lavish treasure chambers. The origin of these people is unknown. On the southern savannahs the Bakuba of Zaire commemorated their king with many fine portrait statues and in the more isolated regions, the Bushmen continued rock paintings. In the Cape Colony, the Dutch gradually pushed inland as cattle raiders and farmers, reaching the Orange River in 1760 and the Great Fish River in 1776. In 1795 the British fleet, acting under mandate from the exiled Prince of Orange, captured the Dutch garrison, primarily to prevent the Cape Colony from falling into the hands of the French. We should note, in passing, that the end of the century marked the birth of Shaka, a great Bantu-speaking king who would eventually fuse the Zulu nations into a great war machine. The Bushmen of the Cape were essentially destroyed by the European impact. (Ref. [10](#), [11](#), [12](#))

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Africa: A.D. 1801 to 1900

AFRICA

NORTHEAST AFRICA

Ethiopia, a land of priests and monasteries, was the only Christian state in this area. It had an emperor without power as the country was - rent by rivalries among the provincial warlords and was subjected to repeated attacks by Galla nomads from the south. Actually, the latter, along with Amhara warlords, wielded the real power. In 1855 an ex-bandit, Ras Kassa, seized power making himself Emperor Theodorus and soon became a tyrant. In 1864 he imprisoned three members of a British mission and they were rescued only three years later by a British military expedition coming in from the Red Sea. Theodorus killed himself and civil war followed. A powerful, local leader, Menelik, supported by Italy finally won out, becoming Menelik II. He soon broke with Italy, however, and captured some 3,000 Italians in a battle at Aduwa in 1896. He did build railways and schools and a new capital at Addis Ababa. (Ref. [1](#), [2](#), [3](#))

The horn of Africa came under the control of the Sultan of Oman and Zanzibar in the 1820s. Throughout most of the century the Sudan was controlled by British-Egyptian administrations, but there were many changes from decade to decade. Some of these are discussed in the paragraphs about Egypt, to follow. In 1885 Major General Charles George "Chinese" Gordon was killed in Khartoum by Mahdi followers, ending Egyptian suzerainty. The religious leader Mahdi then established the first Sudanese government in Omdurman. Some 13 years later, however, Lord Kitchener defeated the Sudanese forces (1898) and started the era of the Anglo-Egyptian Condominium, which ruled Sudan for over 50 years. Just at the end of the century a highly developed Zandes military empire

of the Congo basin swept up into the Sudan, under King Gbudwe, but were repulsed. (Ref. 4)

Napoleon Bonaparte had penetrated Egypt in 1798, but the British navy helped the Turks to drive the French out in 1801, allowing Muhammad (also Mehemet) Ali, an Albanian Turk with Albanian soldiers, to invade. In 1803 the Ottoman Sultan appointed him Pasha (viceroy) of Egypt. There was still a Mamluk garrison present, but in 1811 Muhammad massacred every man in it and emerged as absolute ruler of the country. He then Europeanized the army, reformed the administration and built up the commercial economy, employing many Europeans, especially Frenchmen. The cultivation of cotton helped to awaken the somewhat somnolent Islam and Ali was able to extend his control to Sennar, Arabia, Sudan, Crete and Greece (1825-28) Europeans were considerably upset about all this and a combined British, French and Russian naval force took Greece away from Ali, ensuring the success of a Greek revolution, which had been in progress. Later the Europeans made Ali relinquish a portion of Syria that he had annexed and forced him to settle for hereditary rule over Egypt and the Sudan, only. As a side light of this Near Eastern crisis of 1839-41, a British squadron compelled the French Navy to withdraw support from Ali and this stimulated the French admiralty to find new technological means to challenge the British at sea. In turn, this resulted in the development of steam-powered ships of war. (Ref. 5)

Egypt was independent in all but name. Some gold was found in the southern part and the ivory trade enjoyed a boom. Some 20,000 slaves were imported each year. When Mohammed Ali died in 1849 he left his successors the strongest government, most efficient army and most prosperous economy in Africa. At that time no part of northeast Africa was under any European sovereignty. (Ref. 6) Muhammad Ali's grandson, Ismail, educated in France, ascended to power with the title of king, while still paying tribute to Constantinople. 30,000 Egyptian soldiers kept northern Sudan under Turco-Egyptian rule, although there were still tribal chiefs. In south Sudan there was a Shilluk Kingdom of Nilotic people, although under Turkish suzerainty and a large independent tribal group called "Nuers". (Ref. 7)

A cholera epidemic of 1831 caused the death of 13% of the population of Cairo.

The first Egyptian railway was constructed in 1854 and others in

the Near East followed soon after. By 1875 Egypt was the only African country with more than 1,000 miles of railroad track, but wheeled vehicles were otherwise nowhere of use. Long staple cotton had been discovered and put into production in the 1820s and 30s, with new land under cultivation. Cash crops for export from Egypt included that cotton and tobacco and it should be noted that during the American Civil War the demand for Egyptian cotton increased greatly so that it became worth ten times as much money as previously. Its worth almost trebled again in the next 45 years. (Ref. 8, 9)

French interests constructed the Suez Canal in 1869, but the English gained a share of it by purchase from Egypt in 1875 because the canal saved 41% of the mileage from London to Bombay and 29% of that to Singapore. After the French and English had established a joint control over Egypt in 1880, a native revolt against the British was led by Arabi Pasha in 1881-82, but the British countered with a military expedition two years later which resulted in actual British control of the country, although theoretically it was still under Turkish jurisdiction. The French had withdrawn. In the south the British were repeatedly under attack in the 1880s and 1890s by Muslims led by the Mahdi and his successor, the Khalifa. (Ref. 10, 11, 12, 13)

At the end of the century the British and French again came to blows over the eastern Sudan. The French backed down and, as mentioned earlier, the Sudan became an Anglo- Egyptian condominium in 1898. Indian immigrants to British East Africa eventually surpassed whites in number, however, and currently the migration of a great many of these dark, British citizens to England is giving the administration much trouble. (Ref. 14, 15, 16)

NORTH CENTRAL AND NORTHWEST AFRICA

This was a period when the North African coast was divided among the imperialistic European powers, chiefly France and England. As the latter took over Egypt, France became interested in the more western areas, in spite of some Spanish footholds. Starting about 1830 hundreds of thousands of southern Europeans settled in North Africa, controlling practically all trade, industry and finance, but they did not fuse with the natives racially and they remained a distant and distinct group, arousing increasing local animosity. In

the mountains the Berber Montagnards governed themselves in cantons or village republics and often some of these grouped loosely together for mutual protection. In the vast area of the central Sahara the Tauregs, of Berber stock, were arranged in 5 groups or confederations of tribes, named from the massifs that made up the core of their respective territories. Raiding was the profession of the nobles and most had large numbers of Negro slaves. (Ref. 17)

The bay of Algeria was constantly bickering with the French government over coral fishing concessions and finally in 1830 the French intervened with 37,000 soldiers in 103 ships and launched the largest and most destructive military campaign in the story of European imperialism in Africa. They had pushed the Ottoman Turks out completely by 1841, but they made the mistake of using Jews, who were despised by the Muslims, for support.

Abd al-Kadir, at the head of a religious group in western Algeria, set up a Muslim theocratic state, which was only subdued in 1847 by 108,000 French troops. (Ref. 18) By that time there were 100,000 European settlers in Algeria, with the French in control. Further insult to that country occurred in 1867-68 with the worst drought of its history, along with locusts and cholera. Some 300,000 people died out of a population of 2 1/2 million. The French also occupied Tunis in 1881, provoking a large scale Islamic uprising, followed by sporadic warfare in the south, in the next century. Phosphates from Tunis were used as fertilizer in France. (Ref. 19, 20, 21) Morocco kept foreigners pretty much at bay until 1850, when the French waged a victorious war to become, in essence, the owner of that country. (Ref. 22)

In the meantime, the Ottoman Turks had obtained a firm hold on Tripoli, the Fezzan and Cyrenica by 1835. In the oasis of Jaghbut in the latter country, the Muslim teacher, Sayyid Muhammad al-Sanusi (Grad Sanusi) established a religious center, which was continued after his death in 1859 by his son, Muhammed al-Mahdi. Missionaries were sent from the center out along the caravan routes. (Ref. 23)

We must not leave this section on North Africa without mentioning its troubles with the new United States of America at the beginning of this century. Throughout the Napoleonic Wars the United States had attempted to remain neutral in foreign struggles and had paid almost \$2,000,000 or 1/5 of its national income to the Moslem states of Morocco, Algiers, Tunis and Tripoli for ransom or

tolls. When President Jefferson cut out some of the tolls in 1801 the bashaw of Tripoli declared war on the new nation. In 1804 Commodore Preble attacked Tripoli with the U.S.S. Constitution and the frigate Philadelphia, was taken prisoner, but then rescued by the night-time heroics of Lt. Stephen Decatur, in the captured schooner Intrepid. This, coupled with a heroic desert march by William Eaton across Libya, resulted in a final favorable treaty with Tripoli, which was later repudiated.

SUB-SAHARAN AFRICA

At the beginning of the century the interior of Africa was almost wholly isolated from the rest of the world. The only resident Europeans lived precariously along the coasts where the slave forts and trading posts existed. Most of Africa lagged 100 years behind in economic development, a feature which led to many of the African problems of the 20th century. It will be convenient to discuss the history of Sub-Saharan Africa in the first half of the century separately from that of the second half, and in each instance five main areas will be listed. For the first half of the 19th century, then:

SUDANIC STATES (Immediately sub-saharan and western forest belt)

In the west there were the theocracies of Futa Toro and Futa Jallon, formed after fierce holy wars conducted by Al-hajj Umar. At the southwest corner of the great western bulge of Africa some 2,500 former United States slaves formed the country of Liberia in 1820, introducing American democratic institutions. (Ref. 24) In the Niger River bend the great empires of medieval times had given way to numerous states, chief of which were Segu, Kaarta and Masina. Farther east the whole of Hausaland, including the Kingdom of Bornu about Lake Chad, was overrun and destroyed by the Fulani, under a Tukulor chief, Usman (or Uthman) dan Fodio, in a "jihad" or holy war. The Fulani, of mixed Negro and Berber origin, had a formidable army of horsemen and from Hausaland they struck east and southwest, forming a Muslim Empire of Sokoto under the Kanemi Dynasty. By 1850 this was the most extensive political structure in Africa, comprising 20 provinces in an area of 150,000 square miles between the Sahara and the forest belt. It was through

this empire that Islam penetrated into the southern forest states. Between Lake Chad and the Nile were the sultanates of Wadai and Darfur and on the Nile was the Funj Sultanate of Sennar. All of these communities had extensive trade across the Sahara, bartering slaves, leather, kola nuts, etc., in exchange for weapons, horses and holy books. All of the Sudanic states except Segu and Kaarta had Muslim rulers. (Ref. 25, 26, 27, 28)

Ashanti (modern Ghana), Dahomey, Oyo and Benin (modern Nigeria) all had active, relatively progressive kingdoms, as in the last century. Italian-made coins in the form of milled, coral cylinders, perforated in the center and called "olivette" remained in common usage throughout the 19th century and even to the present day in Nigeria, Sierra Leone and Liberia. The Africans carry them on a string on their belts. (Ref. 29)

(Continue on page 1055) Continue to Sudanic States

EQUATORIAL AFRICA

This portion of Africa was still an unexplored area and the course of the Congo was unknown to Europeans. Slave trade to Cuba and Brazil flourished up until 1840, when it was officially banned. The people of the interior Congo basin were now chiefly of Negroid stock, speaking Bantu languages, having replaced most of the original pygmy and bushmanoid hunters. (Ref. 30) (Continue on page 1056)

EAST AFRICA AND THE GREAT LAKES AREA

In this part of Africa there were a cluster of strong kingdoms - Bunyoro, Buganda, Ankole, Karagwe, Rwanda and Burundi. To the east the hostile Masai terrorized central Kenya and Tanzania as they repeatedly raided for cattle. Arabs on the east coast grew rich from the sale of ivory from elephant tusks and in the slave trade, which they continued well past the half-century mark. The eastern Bantu-speaking Negroes have lighter skin than others, perhaps from considerable intermarriage with people of Caucasoid stock. (Ref. 32) (Continue on page 1056)

SAVANNAH SOUTH OF THE CONGO BASIN

Luba-Lunda was ruled by Mwata Yamvo and Mwata Kazemba. The ancient kingdom of Mwene Mtapu in the region of modern Zimbabwe was rivalled by the Rozwi state of the Changamires. The

last people to inhabit the city of Zimbabwe, which was already somewhat decadent, were apparently driven out about 1830 during the Zulu wars, which will be discussed in the next paragraph. Into the vacuum so created, the Ndebeles tribe swept in from the original Zulu area in the south. On the west side of the continent the Portuguese had coastal settlements in what is now Angola, but after the abolition of the slave trade in 1840, the colonies collapsed and the number of white men there dropped from 3,000 to less than 1000 by A.D. 1850. (Ref. [33](#), [34](#), [35](#), [36](#), [37](#)) (Continue on page 1057)

THE CAPE AREA

An expedition along the Orange River in 1801 revealed a city of 10,000 people in the territory now called Botswana, which is surrounded by desert. Although millet and some legumes were used, the people relied chiefly on cattle, using the milk in a curdled state.

Both Dutch and British had started settlements near the Cape at the end of the 18th century and in the early years of the 19th they came in contact with a great southward migration of the Bantu-speaking blacks from central Africa. These included multiple tribes such as Swazi, Zulu, Pondo, Tembu, Xhosa, Sotho and Tswana. There was cattle raiding along the line of the Fish River and fighting between the Dutch and the natives had broken out in 1779 to last over a hundred years. After the British officially came into power at Cape Colony by treaty with the Batavian Republic in 1814, they decided to secure the line of the Fish River by colonization. Between 1820 and 1821 some 5,000 people were brought there from Great Britain. English began to replace Dutch as the official language, the judicial system was remodel ed on the English pattern and Dutch currency was replaced by English. But Anglicisation was not completely successful as the Dutch clung tenaciously to their own culture and institutions so that the only result of the new policy was to harden those differences of opinion, especially on the native question.

When the English missionaries got slavery abolished in 1833, the settlers were indignant.

The first crisis came in 1834 when hordes of blacks swept over the Fish River frontier, laying waste the country and destroying the farms. The governor, Sir Benjamin D'Urban, drove them back and

annexed the territory to try to prevent future trouble, but the missionaries forced abandonment of that plan and prevented any compensation for the damaged farms. Thus was provoked the Great Trek, in which about 5,000 Boers (Dutch), with women, children and cattle, set out into the unknown, some going as far as 1,000 miles inland, to get away from the British. Many were attacked by Matabele and the Zulus and all endured thirst and famine.

At about that same time, the empire of the Zulus, under Chaka and his successor Dingaan, began a war of blacks against blacks, crushing all other tribes in the area and leaving a trail of devastation, rotting corpses and burned villages. Most of modern Transvaal, Orange Free State and Natal were denuded of population. The massacres of thousands of natives thus gave the Boers room to move, although in great peril. They, themselves, finally crushed the Zulus in a great battle at Blood River in 1838 and then established the Republic of Natal in the region east of the Drakenburg range, with Andries Pretorius as its first president

They then discovered that there was already a garrison of British troops at Port Natal (later Deurbar) and by 1843 the area was made into a British colony. Most of the Dutch then went back over the range to the region of the Orange and Vaal rivers to establish the independent Boer state of the South African Republic (Transvaal) and two years later the Orange Free State. (Ref. [38](#), [39](#), [40](#)) (Continue on page 1057)

The last half of the 19th century showed some great changes in those portions of Africa under European control, but even as late as 1875 those areas were primarily Algeria, Senegal and South Africa, although the pressure was gradually increasing overall. Although the European slave trade was supposedly banned early in the century, by 1850 some 25,000,000 blacks, supplied by local Africans, had been sent away from the continent by European, American, and Arab slavers. But Christian missionary activity increased and the hinterlands began to be explored with gun-boats behind them. As the Europeans gradually increased their coastal influence, the Age of Imperialism in Africa was initiated. This was about 1860 and we shall now re-examine the five sections of sub-saharan Africa as they received the impact of the 2nd half of the 19th century:

SUDANIC STATES

The Ashanti Kingdom comprised most of what is modern Ghana and in 1850 had 3,000,000 to 5,000,000 people in its 125,000 square miles. There was great opulence in the royal court at the capital, Kumasi. In an unusual arrangement, a new ruler was chosen by the Queen Mother, assisted by senior chiefs. Trade was active in gold, slaves, livestock and food-stuffs. In neighboring Dahomey there was a royal core of women warriors consisting of some 5,000 women backed up by 7,000 men. It was their custom to have an annual killing of several score criminals and war captives.

The French began to penetrate along the Senegal River to obtain a profitable gum trade and the British began to occupy Sierra Leone and to take over the Niger basin.

A crown colony was established at Lago in Nigeria in 1861 and by the 1870s there were 14 British steamers on the Niger River. On the upper Niger, however, the Tukolors, under their leader al-Haji Umar, were active and expanded to come up against the French on the Senegal.

EQUATORIAL AFRICA

White explorers penetrated central Africa in this time period, going chiefly from east to west. Prominent among those was Sir Henry Morton Stanley² who explored the Congo for King Leopold of Belgium and then sold the southern bank area to Belgium. France signed treaties with the Bateke Kingdom for the north bank of the Congo, through the explorer Savorgnan de Brazza. All of this European penetration would have been impossible without quinine for control of the endemic malaria. The Dutch had originally obtained that drug from Java.

The scramble for land in Africa by European powers became so intense that in November, 1884 Otto von Bismarck and the French premier called a Berlin Conference in which 14 nations took part. In addition to agreeing to work for the further suppression of slavery, the nations agreed to complete liberty of commerce in the Congo basin and adjacent coasts and the Congo and Niger rivers were to have free navigation.

Deep in the rain forest, however, pygmies and negroids still ruled unmolested by whites. In Katanga, Msiri, with Yeke followers, established himself as chief and initiated a reign of terror. Fortress grounds were littered with skulls of people he had tortured and murdered. That empire disappeared by the 1880s. (Ref. [42](#), [43](#), [44](#))

EAST AFRICA AND GREAT LAKE AREA

In 1850, through the genius of Sultan Sayyid Said of Oman, Zanzibar was made into an influential center, with a small army and navy. By 1860, however, it was under some British influence and by 1873 the British navy had stopped the sultan from trading in slaves. (Ref. 45) Buganda, now a province of modern Uganda, launched great raids under Mutesa I between 1854 and 1883 to obtain slaves, cattle and ivory. For this purpose Mutesa had a large army and a navy of canoes for use on Lake Victoria. That country also fell under British protection in the 1890s.

In Kenya the basic Kikuyu people had no chiefs and were ruled by a senior elders' council. They were repeatedly terrorized by the Masai, who dominated an area of 80,000 square miles and who had two passions in life - war and cattle. Because of these warriors, when white explorers such as Burton, Speke, Grant, and Stanley went in to central Africa they went from the south over dry bush country infested with many tropical diseases.

Even the Masai, themselves, were decimated in the 1880s, but that was from small-pox. The great days of the Masai ended in the 1890s as the British occupied the Kenya highlands. Many of the large game animals were already becoming limited and a few, such as the quagga³, were already extinct.

SAVANNAH SOUTH OF THE CONGO BASIN

It has been noted previously that Portugal had an early lead in Angola and then she took Mozambique. Actually there were very few whites in those two areas, including only about a dozen priests. The white men did intermarry with the natives and kept some measure of control in that way. Germany, not to be outdone, wedged into areas on the Indian Ocean coast north of Mozambique and Cameroun and in Togo (German Southwest Africa) in the west. In the second phase of European partition of Africa, after 1895, there was increasing bitter, local African resistance. The colonial governments had turned to raising money by direct local taxation and corvee, or forced labor systems, had become widespread. This, along with the expropriation of land, led to more destructive, bitter and longer wars, with the superior weaponry of the invading Europeans winning in all areas⁴. (Ref. 46, 47)

THE CAPE AREA

One region where war occurred with white against white, rather than against black, was in South Africa. By 1856 the Cape population was roughly 267,000, including 119,000 Europeans with a Dutch majority. Natal had about 6,500 people, chiefly English; the Orange Free State had 12,000 Europeans and the Transvaal some 18,000. Both of those were soon free of English control. By 1857 there were 8 separate governments in South Africa - 5 Boer republics and 3 British colonies. Intermittent fighting continued and when the Boers of Transvaal attacked blacks led by Khama the Great, in Boswana, the British protected the latter.

Map taken from Reference 97

Two great mineral discoveries began to effect tremendous changes in the area. First, diamonds were discovered in an old volcano chimney along the Vaal River and at the site of present day Kimberly, bordering English and Boer states. Within 10 years \$100,000,000 worth of diamonds had been mined. The British, who negotiated themselves into annexing this Kimberly region into the Cape Colony about 1870 and two Englishmen, Cecil John Rhodes and Barney Barnato, gained most from the diamonds. Secondly, gold was discovered on the Witwatersrand in 1886 and by 1900 some 100,000 men were employed in the gold fields. The gold rush made the original mining camp into the city of Johannesburg, which then had 237,000 people by 1911 and more than 1,000,000 at this writing. The gold was deep in the earth, requiring costly machinery and capital to recover it. Rhodes, with a dream to make all Africa British, got involved only politically in the gold industry as the British attempted to take this over. Conflicts inevitably followed with eventually a full-scale war. Many British at home were actually pro-Boer, including Lloyd George, but most of the people were staunchly imperialist. Paul Kruger, who had taken part in the Great Trek, headed the recalcitrant Dutch, who were unwilling to make common cause with the British. They opposed any advance of industry, although ready to feed on its profits.

In spite of long drawn out negotiation, actual war started October 9, 1899 when Boer groups moved over the border. The latter started with 35,000 men and artillery derived from German sources. Almost all were mounted. The German presence in the region was actually the main factor which had activated Britain to

move north again. Suddenly in 1883 the Germans had run up their flag in Luederitz Bay on the Atlantic and proclaimed the whole of southwest Africa as a protectorate and began to survey a route for a railroad to the east, linking up with Paul Kruger in the Transvaal and then on to the east coast. The danger to Britain's holdings was obvious and so they moved, annexing Pondoland, Zululand and Tongaland, cutting off the only possible outlet of the Transvaal to the sea and then they took part of Bechuanaland. The countryside and world opinion was with the Dutch, but the British poured in men and arms and by autumn of 1900 both Boer capitals had been occupied and it seemed that the war was over. But the rebels fought on and were only finally subdued sufficiently to sue for peace in March 1902 after thousands of men, women and children had been swept into concentration camps. The total cost in money to the United Kingdom of the Boer War was reckoned at over 220,000,000 pounds. The British lost five times as many men from disease as from battle and left a legacy of mistrust and bitterness. (Ref. 48, 49, 50, 51, 52)

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1. As late as 1890, however, Stanley reported that he had found Mbuti pygmies living in symbiosis with neighboring Negroes in the Ituri forest. (Ref. 31)
2. Stanley, born in Wales as John Rowlands, took the name of his adoptive father in New Orleans, fought on both sides of the American Civil War, found David Livingston on Lake Tanganyika in 1817 on commission by the New York Herald and finally sold his services for African exploration to Belgium. (Ref. 41)
3. Similar to a zebra
4. Except, as we have seen, in Ethiopia, where the Italians met defeat

America

Geographical Presentation of America

The last geographical area which will be discussed under each time-frame will be the whole of the New World, America. Since this consists of two major continents with an intermediate connecting region, the area will be divided into three subdivisions.

NORTH AMERICA

This geographical area is shown on the map-diagram. In the text the historical material will often be further divided into [1] The Far North and Canada and [2] The United States. Since we are interested in a geographical area, not necessarily political boundaries, the first category of "The Far North and Canada", will include Alaska and Greenland, even though the former, of course, is a part of the United States and the latter belongs to Denmark. The second portion will actually be limited to the *continental* United States. It will be of interest to compare latitudes on this diagram with those of Europe and the Far East. For example, we will be reminded that the British Isles lie at about the same parallel as the southern part of Hudson Bay in Canada and that the center of the United States is on the same latitude as *north* China and the Tarim Basin in Central Asia. The Bering Strait, the middle of Hudson Bay and the southern tip of Greenland are all on approximately the same latitude as Leningrad in Russia.



Map 1.1: North America (This map was obtained from <http://english.freemap.jp/index.html> and is used with permission under a Creative Commons Attribution 3.0 license.) Map of North America

MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

The map-diagram showing this and the next subdivision is on the second- page ahead. Mexico is shown in violet color, while Central America and the Caribbean islands are in yellow. The Canary and southern equatorial currents, which have been important in the discovery of the New World, are shown. The present political lines in Central America are shown, marking Guatemala, Belize, San Salvador, Honduras, Nicaragua, Costa Rica and Panama, going from northwest to southeast.

SOUTH AMERICA

On the South American map the rough course of the main rivers and the general extent and location of the cordillera are shown. No attempt has been made to outline the current borders between the various countries, but the general areas of the most important are indicated. In the main body of the manuscript in some time-frames this continent is divided into [1] Western and Northern Coastal Areas and [2] Eastern and Central Areas.



Map 1.2: Mexico, Central America, the Caribbean, and South America (This map was obtained from <http://english.freemap.jp/index.html> and is used with permission under a Creative Commons Attribution 3.0 license.)

America: Beginning to 8000 B.C.

NORTH AMERICA

At sometime between 40,000 and 10,000 B.C. human hunting groups occupied all the main land masses of earth except Antarctica. Men reached America about 20,000 B.C. (perhaps earlier) from Asia over a land bridge between Asia and Alaska, varying from three hundred to one thousand miles wide and apparently including the Aleutian Islands where blades and burins, perhaps dating back to 10,000 B.C. have been found. Otherwise the earliest known cultures of the American far north have not been well dated¹. The so-called British Mountain Culture near the Yukon Arctic coast is probably the oldest, with artifacts of eastern Siberia, including crude instruments and shaping tools. There, in the Old Crow Basin, the first known occupation site in the New World has been tentatively carbon-dated to 25,000 B.C. The inhabitants were skilled users of bone, using mammoth and horse bone, the latter animals ranging in size from ponies to Percherons. Jaws of domesticated dogs appear to be 30,000 years old. At any rate, the people who came over the land bridge apparently simply followed their prey animals and were of a basic, general Mongoloid stock with skulls not much different from Caucasians and their descendants became the American Indians. The tools and skills spread from Asia to America with them and included the stone adze, spoons, combs of bone or horn, the toggle harpoon and eventually the bow and arrow. Marshack (Ref. 1) says the American Indians came in waves from Asia over a period of perhaps 20,000 years with some as late as 2,000 B.C. The latter figure is not further explained. We know that the land bridge was present off and on over several millennia, but never as late as 2,000 B.C. It is interesting that as late as 1962 this theory of the Asiatic origin of

the American aborigines was not universally accepted. Greeman (Ref. 2) was committed to diffusion across the north Atlantic in skin-covered boats in the Upper Paleolithic times. He felt that Sandia Culture material in America was the same as the Solutrean of the Montaut site in southwest France. Blood typing studies beginning with Boyd (Ref. 3) in 1963 probably laid this theory to rest.

The great bulk of the people coming over the Bering land bridge may not have been able to migrate down into the region of the United States and farther south until about 12,000 years ago when the ice that had previously almost covered Canada finally melted enough to open a corridor east of the Rockies, at which time the Mongoloid hunters poured through to the gamelands of the American plains. Dr. Knut Fladmark (as quoted by Canby [Ref. 22]) of British Columbia argues that some men could have come south when the corridor was closed by leapfrogging down the coast where there were many ice-free pockets, by boat. Furthermore, recent work shows positively that much of the coast line and island archipelago off the coast of southern Alaska was never covered by glaciers at any time. (Ref. 5)

A slightly different view is given by Swanson et al (Ref. 6) who states that the first crossing of the Bering Strait occurred from 26,000 to 28,000 years ago and that these people became the American Indians with blood types chiefly O, with some A and no B. Then a second migration took place between 10,000 and 20,000 years ago which perhaps included the Eskimos who have AB and O blood types. They may have come by kayak from one shore to another as Eskimos today still live on both sides of the Bering Strait. By 10,000 B.C. prehistoric hunters were in all parts of the New World, even at Tierra del Fuego. Some fishing and gathering populations were very large. The highest average population density north of Mexico was in California where there were the acorn gatherers, a group which was so successful that they were not apt to experiment with new techniques. The most recent glaciation period in North America reached its maximum between 18,000 and 22,000 years ago and extended down to New York State and central Ohio, covering Minnesota, Wisconsin, Iowa, Illinois and parts of Kansas and Missouri. After 12,000 B.C. this retreated rapidly, sometimes several miles in a single year.

At 9,000 B.C. the American plains still teemed with giant bison,

camels, stagmoose, musk-oxen, large cats, mastodons and three kinds of mammoths. Most of these were gone within 1,000 years of man's arrival. The dating of the flint spearheads of the Sandia Culture which have been found in Oregon, Ontario and New Mexico have been variously dated from 23,000 to 6,000 B.C. At any rate it was along the retreating ice edge, where the spruce forest and pines migrated north and west from the Appalachians and the oak moved north from the Gulf, that the increased parkland and grass allowed the human population, now with a radical new stone technology, to greatly increase. This was the time of the Great Hunting Culture, associated with the Clovis points of the Sandia Culture mentioned above. These Clovis points (so named because first identified near Clovis, New Mexico) were large, heavy flint points designed for hunting large animals, and butchered elephants have been excavated dating to the period 9,500 to 9,000 B.C. In some areas this culture, also sometimes called Llano, has been dated from 11,000 to 15,000 years ago. The Folsom spear points which developed from the Clovis were smaller and more delicately made, for effective use by the bison hunters.

As temperatures rose and the cloud cover diminished, there was an increased evaporation rate, the plant cover thinned and the great herds declined rapidly. Some feel that prior to the temperature rise the north-south corridor opened up in the glaciers allowing arctic winds to descend on the plains, and the sudden drop in temperature was a factor in the dying off of the giant bison and mastodons. The Desert Tradition of western North America, dating from about 9,000 B.C. was centered in the Great Basin of Nevada between the two great mountain chains and occupying portions of six present states - Nevada, Wyoming, Idaho, Oregon and California. Baskets and milling stones were made and the subsistence base included small seeds, berries, bulrush rhizomes and nuts.

In eastern United States, some forty miles south of Pittsburg is the Meadowcroft rock shelter where remains of Ice Age man includes a bifacial projectile point which may be ancestral to the Clovis point. The carbon-14 dating of the hearth is 14,000 B.C. but some doubt if this date is correct. (Ref. [7](#), [8](#), [9](#), [10](#), [11](#), [12](#), [13](#), [14](#), [15](#))

Concerning blood types, most North American Indians are exclusively type O but a few, such as the Sioux, Chippewa and Pueblo have 10 to 15% Group A while the rest are O. These may

represent separate and later migration groups over the Bering land bridge, or, as shall be discussed later, possibly mixtures with Europeans or later Asiatics. (Ref. [16](#), [17](#))¹

¹

Texas radio-carbon dated to 10,000 years ago. Artifacts buried with them indicate trade, with sea shell pendants, red flints from the Texas Panhandle, projectile points from the plains and some tools. Some burial objects indicate a death ritual, perhaps related to a religion. Bones of cooked rabbits, turtles, raccoons and snakes were present. (Ref. [18](#))

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

The National Geographic Society (Ref. [19](#)) says that artefacts suggest man's presence at Puebla, Mexico by 20,000 B.C. although such early dates are not universally accepted. The rock shelters near Tehuacan have been continuously occupied since 10,000 B.C. In Central America gourd and squash date to prehistory along with various wild forms of beans, lentils and chickpeas. (Ref. [20](#))

SOUTH AMERICA

The tools of Pleistocene men who hunted camelids, sloths and perhaps horses have been unearthed at the bottom of a rock shelter on the western slope of the Andes cordillera. The presence of humans has been attested 13,000 years ago in Venezuela, Argentina and Peru. During the last phase of the Ice Age (the Wisconsin in North America) the Andean glaciers were as low as 11,000 feet and their melting later may account for the rarity of human sites during that chaotic period of terrific gorge flooding. After that, however, the Andes were certainly inhabited by numerous bands corresponding to the archaic societies of North America. In central Peru, at Chilca, where at 12,000 to 13,000 feet altitude only eight inches of rain fall in a year, caves with as many as fourteen archeological strata have been excavated. Perfectly preserved corpses of several people have been found indicating a stout but tall physique, varying from 65.2 to 69.2 inches in height according to

sex, with long heads, protuberant jaws and strong bones. They had clothes made of cactus plant fibers or of reeds. Some had cloaks of vicuna skin, painted and sewn with the help of cactus spines. Weapons were slings and spear throwers with javelin points made from obsidian, basalt or quartz. Hand axes and scrapers were very similar to the European Mousterians', although separated in time by some 20,000 years. At about 13,000 B.C. the waters of the Pacific were some three hundred feet below present level, and at times since then they have been sixteen feet above the present level and have oscillated through the ages. This may have greatly disturbed the lives of the early dwellers by virtue of changes in the fresh water levels of the beaches of arid, western Peru.

Human living sites along with bones of sloths, horses, camelids and mastodons have also been found in the sierra region (the Atlantic Andes) of Columbia and Venezuela. Men may have reached the extreme tip of South America at Falls' Cave by 9,000 B.C. or shortly thereafter, but there may be some disagreement as to their origin. In this area Patagonian caves were inhabited during the high Holocene and immigrants from Australia or Southeast Asia may have entered the continent via Antarctica and the island of Tierra del Fuego. Still later other settlers came from the eastern Andes. On Tierra del Fuego the chief people were Onas - big, handsome men dressed in vicuna skins. They had domesticated dogs and poison arrows and removed their body hair with shells used as pincers.

The Lagoa Santa caves in Brazil show charcoal dating to between 18,000 and 20,000 B.C. and tools along with mastodon bones dating to 9,400 B.C. have been found in central Chile. El Ingo is a pre-ceramic site at an altitude of 9,100 feet in Ecuador, dating back to about 10,000 B.C. showing an obsidian workshop and hunting camp site. The tools show similarity to Folsom and Clovis points of North America. (Ref. [21](#), [22](#), [23](#))²

2

C. and at the tip of South America dating to 10,000 B.C. (Ref. [24](#))

It has been the belief of authorities in the past that all Central and South American Indians had the blood type O exclusively. Very recent ABO blood-group antigen and HL-A white cell studies indicate that this was not true of Peruvian and Chilean coastal

peoples even at 3,000 B.C. Both A and B were found in mummies of Paracas, Huari and Ica while AB was found in these areas plus those of the Huacho and Nazca. Only the Inca mummies were 100% O and only five of these were studied. Of only four Chile Atacamenas mummies typed, all were type A. We do not know what this means, but it is possible that these studies are compatible with ideas of pre-Columbian diffusion from Europe or Asia, a feature we shall discuss later. (Ref. 25) Professor Frederic Andre Engel (Ref. 26) who has spent most of his adult life as an archeologist in South America re-emphasizes that although one must accept an Asiatic foundation, evidences of strong foreign influences appear almost everywhere in the Americas, even in pre-Columbian times.

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America: 8000 to 5000 B.C.

NORTH AMERICA

The land bridge from Siberia to Alaska became inundated about 8,000 B.C. and, as mentioned previously, the later arriving Eskimos and Aleuts came by boat and represented the later, classical Mongolian race, as contrasted to the earlier original Mongolian stock who came over about 20,000 B.C. Possibly still later came the Athapascans, who slowly moved inland where many still live today in central, northern Canada. Some of these Athapascans eventually migrated down to the southwest United States where they became the Apaches and Navajos.¹

¹

C. Mummies on neighboring islands are wrapped in furs and woven grasses. (Ref. ¹)

In the United States area big game hunting continued throughout this period but with a gradual decrease in the number of animals available. By 8,000 B.C. North American Indian culture was already divided into three great patterns:

- **Eastern Woodlands**, which will later be called "Archaic"
- **Desert**, possibly related to **Eastern Woodland**
- **Western Paleo-Indian**

Although the Eastern Woodlands actually existed from 8,000 B.C. to about 1,000 B.C., during this 8,000 to 5,000 B.C. period under discussion it was called "Early Archaic" and was characterized by big game hunting with fishing and shell and plant gathering. Burial

mounds were being built in eastern Canada by 5,000 B.C. (Ref. 2) In the mid-west there was a related sub-culture called "Modoc", with evidence of mano and metate (stone mortar and pestle) existing about 7,200 B.C. Another variation existed in the Ozarks, Oklahoma and Mississippi.2

2

C. (Ref. 3)

The Western Paleo-Indian Culture was originally a big game hunting tradition congregated in the Great Basin lying between the Cascade Mountains of southern Oregon and the Rockies of Idaho and running south through Nevada, western Utah and the eastern part of California. The "Old Cordilleran Tradition" is a name given to the culture of Indians in the Oregon and Washington areas dating from 7,800 to 5,700 B.C. who used characteristic flaked stone points known as "Cascade points". Around 7,000 B.C. some of the hunters from the Great Basin area migrated south into the mountains and tablelands of the southwest- i.e. southern Colorado and Utah, along with Arizona, New Mexico and the Mexican states of Sonoro and Chihuahua. This migration was probably precipitated by weather changes which were making semi-arid deserts of the previous great savannahs of the Basin, and the consequent disappearance of the game. One large branch of these ancient immigrants to the southwest has been given the name recently of "Cochise" (from a county in Arizona). The so-called Sulfur Springs Phase of this culture ran from 7,000 to 5,000 B.C. and was a society dependent on hunting ancient horses, mammoths, antelope and bison with flaked projectile points. The Lake Mojave area of southern California has yielded kite-shaped points, choppers, drills and scrapers, some of which have been dated back to 9,000 B.C. At 6,000 B.C. the climate changed with a marked rise in temperature associated with drought. The great herds died out including the mastodons and camels. Many areas were denuded and there was a shifting of Indian population and a change in their living patterns. (Ref. 4, 5, 6)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

By 7,000 B.C. in the Tehuacan Valley of Mexico there were people living in rock shelters and using stone cooking pots which were left in the center of the hearth. Maize was used in the same valley between 6,000 and 5,000 B.C. and at some point the turkey was domesticated. Before the development of pottery some peoples may have used animal stomachs as liquid containers to hang over fires. In the same valley there is evidence of the use of six food resources--the maguey plant, cactus fruits (prickly pear), tree legumes like the mesquite, wild grasses, deer and rabbits. Cultivated plants probably made up only 5% of the diet, as opposed to 54% from hunting and 41% from collecting wild plants. The common bean and maize were introduced into the valley about 5,000 B.C. Maize apparently went under considerable genetic change with cultivation, but since it lacks an important amino acid, it was fortunate for the Indians that it was eaten in connection with beans, which supplied the deficit. (See also Africa in the 16th century C.E.). There was squash in the Mexican highlands before 5,000 B.C. (Ref. 7, 8)

SOUTH AMERICA

As early as 8,000 B.C. the need for artistic expression apparently existed in the high Andes. We mentioned in the last chapter that prehistoric people had painted clothing, but now we can add necklaces, bracelets, carved pendants and geometrically marked bones, painted green. These people ate prickly pear cactus, alder seeds, tomatoes and plants with rhizomes and tubers such as jiquimas, potatoes, ullucu and possibly manioc and sweet potatoes. There is also refuse of many land mammals such as bucks and roe deer, vicuñas, camelids and rodents, as well as the remains of fish. Although the caves were sixty miles from the ocean, marine mollusks have been found, suggesting that these men migrated at times to the seashore, probably living in the condensed fog oases called lomas, as the beach land otherwise is completely arid. By 7,000 B.C. there were all sorts of projectile points in Venezuela, Chile, Bolivia and Peru. Long-headed human skeletons along with both extinct and modern animals have been found in Brazil dated to the same time.

Natives of both Americas are of extremely varied types. In South

America there are people with Caucasian appearance but dark brown skin, along with Mongolian types with African faces, but of pale or sallow complexion. Big, straight non-aquiline noses are seen frequently near Cuzco in the high Andes, where non-Mongolian characteristics mix with true Asiatic ones. Many scholars such as Julian Steward, Paul Rivet, Miguel Covarrubias and Heine Gildern, as well as Heyerdahl and Fell, who will be mentioned often in this manuscript, are all coming to the conclusion that transoceanic voyages from southern Asia, Polynesia, even Australia or Africa, have helped people the New World since the Bering Strait migration. The early men of 8,000 to 4,000 B.C. unearthed in the excavations of Professor Engel (Ref. 9) were all dolichocephals, prognathous, big-boned and tall, whereas the 16th century people found by the Spaniards were of only mediocre height, meso or brachycephalic with short limbs and slender frames.

By 6,000 B.C. some Andean populations were already advanced to the stage of comparable groups in the Near East, not yet true farmers or herders, but living a sedentary type of life, occupying well defined territories. On a south Peruvian plain between mountain spurs, inland from the coast at about the 16th parallel, there were hundreds of inhabitants using water from now dry wadis. Seashore villages of the same millennium have also been found and because of the complete surface dessication, humans have been uncovered by simply brushing off the sand. They still have their clothes, skin and eyes after 7,000 to 9,000 years. Milling stones have been found in every hut and in graves, particularly in the Santa Valley of Peru and the eastern Andes. It is possible that llamas and alpacas began to be domesticated on the eastern slopes at about 6,000 B.C.

In the Columbia and Venezuela areas between 7,000 and 3,000 B.C. Meso-Indians lived, eating seafood, berries, seeds, roots and tubers. Remnant now can be identified by the large mounds of shells, ashes and food debris. These northern South Americans were also navigators, for traces of the same people are found on all adjacent islands. Documentation regarding humid Chile and Argentina is lacking in this early period, although groups of pre-agriculturalists certainly occupied the western slope of the Chilean Andes at times about 8,000 B.C. although perhaps not continuously. It is possible that some fifty valleys in central Peru and arid Chile were inhabited by groups of up to 2,000 people before agriculture

appeared on the coast. (Ref. [10](#), [11](#), [12](#))

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America: 5000 to 3000 B.C.

NORTH AMERICA

1. FAR NORTH AND CANADA

In the far north there was a micro-blade tradition called "Little Arm" with evidence of caribou and elk hunting dated from 5,500 to 4,000 B.C. In Canada by 4,000 B.C. the Maritime Provinces were settled by hunters, fishers, and gatherers. The Columbia plateau folks, previously mentioned, were hunting elk and deer in the forests of Douglas fir and western yellow pine, and fishing for salmon in the Columbia by 9,000 B.C. (Ref. [1](#), [2](#))

2. THE UNITED STATES

Between 5,000 and 3,800 B.C. the temperature lowered again and precipitation increased so that some game returned as the climate approached what it is today. Even so the hunting cultures gradually gave way to a type in which the people were not specialized in a single skill but were versatile enough to attempt other things.

In the Eastern Woodlands there was now a "Middle Period" with great variation from area to area. Some used antlers and bones for fish-hooks, spears and harpoons, some learned to use copper for tools and ornaments. In the latter respect, a distinctive culture of the Great Lakes and upper Mississippi Valley, beginning about 4,500 B.C., was the "Old Copper Culture" in which the metal was worked either in the cold or hot state, but it was never melted or cast. Knives, barbed harpoon points and atlatl weights (throwing sticks) were made in this way. There was no big game present and most of the inhabitants of the eastern societies used steatite vessels. The earliest of the Archaic Cultures is sometimes called the southern "Indian Knoll Society", with a later northern Lauretain

Culture about the Great Lakes and on eastward where along the Labrador coast it eventually came face to face with Eskimos. (Ref. 3, 4, 5)

The western Desert Culture was oriented toward plants, collecting of small seeds and roots for food. Plant fibers were used for baskets, footwear and nets for snares.

In the southwest, the Chircahua Phase of the Cochise Culture made its appearance about 5,000 B.C. and was to last about 3,000 years. It was there that maize first appeared in the United States, sometime between 3,000 and 2,000 B.C., apparently brought up from Mexico where it had been cultivated long before. The Cochise could grow the corn because they had the soil, the right growing season and the necessary skills and tools. They could already weave baskets in which to store it and had long used grinding tools to pulverize seeds and nuts. This early desert society later gave way to the Pueblo and Mexican empires. In California the San Diego County Archeological Society recently brought suit against a land development firm, alleging that it intentionally marred a site thought to have been occupied by La Jolla Indians 3,000 to 7,000 years ago¹. Excavations on Catalina Island just off the California coast, show that man gorged himself on abalone in the 4th millennium B.C., almost wiping out the colonies (Ref. 6, 7, 8, 9)

MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

Santa Luisa, in the Veracruz area was occupied before 4,000 B.C. and became major trade center with an extensive irrigation system. The people were successful hunters and gatherers as well as early farmers. By 3,500 Mexican cave inhabitants relied heavily on agriculture. One third of their food came from domesticated plants, including maize, beans and others. Maize was destined to play the same role here that wheat and barley did in the Near East. In the Tamaulipas Mountains they had begun to domesticate summer squash and chili pepper, and the bottle gourd (as a water container). Early man also ate grasshoppers, ants and termites.

We speculated at the beginning of this chapter that the time of about 3,100 B.C. might have been a milestone in history when some fantastic upheaval occurred in the Atlantic, with far-reaching secondary effects in the development of early civilizations in Egypt

and the Near East. It is amazing then, to find the zero date in the incredibly accurate Maya Calendar, which will be described later, to be "4 Ahau Cumhu", which converts to our calendar as August 12, 3,113 B.C.! No satisfactory explanation of that date has ever been given, but Maya written and oral texts and those of their descendant civilizations claim descent from a civilized people who sailed in from the east! (Ref. [11](#), [12](#), [13](#))

SOUTH AMERICA

Dating to probably about 5,000 B.C., in those last centuries before real agriculture, is the partially excavated village on a loma at Paloma on the dry Peruvian coast. The village extends over 1,900 feet in length at an altitude of 660 to 825 feet. Engle (Ref. [14](#)) excavated only 2 trenches, removing 35,000 cubic feet of rubble, using only trowels and brushes. Some 90 graves and 45 huts were thus exposed and from that he estimated, by extrapolation, that complete uncovering of the entire village areas would involve 7,000,000 cubic feet of debris to be removed to reveal 9,000 graves in and around some 4,000 to 5,000 houses. Obviously this was not done.

Radio-carbon datings indicate that cotton and beans were present in the upper inter-Andean valleys about 6,000 B.C. but in the coastal villages they were not present until 5,000 B.C. or shortly thereafter. At Chilca, about 45 miles south of Lima, portions of another village have been excavated, showing multiple archeological layers, indicating multiple re-occupations. Carbon 14 dating indicates the earliest habitation at 3,500 B.C. Large mollusks were present but are no longer to be found, so the shore line may then have been much farther east and the retreat of the ocean-line and consequently the mollusks, may have led to the abandonment of the site. Only a few sites have been uncovered, since a cubic yard of kitchen midden weighs about 2,600 pounds and so sifting a village of 7 1/2 acres that forms a mound 1 yard thick means the "---sifting some 36,000 tons of debris, the equivalent of a train 1,000 cars long"[2](#).

Maize was brought down from Mexico, but potatoes and manioc were developed from local plants. The earliest dated pottery in the New World is from Colombia, from 3,090 B.C., sand-tempered with

wide-lined incising. Cotton has been used for at least 4,000 to 6,000 years in the Andes, replacing other plants that could be used for spinning and making cloth.

We have written something of Patagonia and Tierra del Fuego in the last chapter. The islands of the western archipelago off the tip of South America were still blocked by ice until about 5,000 B.C. and the Alacaluf arrived after that time. They were a little people with the men ranging from 61 to 62.5 inches and the women 56.9 to 57.7 inches, with a truly Asiatic appearance, including thick black hair, Mongoloid spots and very little body hair. They lived entirely from the ocean, diving off boats made of boards sewed together. Later these people were sold as slaves by the Chonos to the north. (Ref. 16, 17)

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1. Complaints have been made that other construction projects have destroyed hundreds of prehistoric Indian sites in California. Estimates give more than 600 Yokuts villages, campsites and burial grounds in Merced and Stanislaus counties. Logging operations in the Sierra Nevada range have churned up innumerable similar sites. Along the south coast there were Chumash, Gabrielinos, Fernandinos and some others, depending upon a fishing and food gathering existence. These people were apparently free of intertribal wars and did not have the cyclical famines suffered by groups dependent upon farm crops. They lived in large villages, used plank canoes and traded with villages on the Channel Islands, often bartering the coastal basketry for effigies carved from the steatite rock of Catalina (Ref. 10).

2. From Engel (Ref. 15), page 98.

America: 3000 to 1500 B.C.

FAR NORTH AND CANADA

There were always more people on the Aleutian Islands than on the mainland, because of a milder climate. Nevertheless, from 4,000 to 1,000 B.C. an Arctic Small Tool tradition existed in Alaska, spreading across the arctic part of Canada to Greenland, given its name from the miniature blades lashed to handles of bone or walrus ivory used for cutting and scraping skins. The blades were chipped from a core of chert, a rock of micro-crystalline quartz. These Asiatic people even migrated to Ellesmere Island in northeastern Canada, less than 800 miles from the North Pole, about 2,300 B.C., crossing over the mountains in a great notch, today known as Sverdrup Pass, to the upper end of Baffin Bay, which usually has open water at least in the summer. Canadian archeologists have excavated some of these pre-historic sites, where the earliest are now thirty to thirty-five meters above the present sea level, although they were originally on the beach. As in other northern areas of the globe, the earth's crust has risen slowly over the centuries after the lifting of the great weight of the glacial ice. From Ellesmere Island progress into northern Greenland over winter ice was no problem. By about 1,500 B.C. in British Columbia (and Washington state) people were settled in villages and fished for salmon, although they did not practice cultivation. (Ref. [1](#), [2](#), [3](#))

This is the era of the so-called Red Paint Culture, with native Amerindian Stone Age traditions derived from old northeastern Asia. The Red Paint or Moorehead Culture originally described from prehistoric graveyards in Maine - the graves containing red ochre has now been identified as part of a larger maritime Archaic tradition extending from northern Labrador at the 60th parallel to southern Maine between about 2,000 and 1,500 B.C. This area was

deglaciated about 7,000 B.C. with tundra then present until about 3,000 when spruce forests finally appeared. The settlement pattern and life styles of these Red Paint people seems to have been different from both the Eskimos and the Montagnais-Naskopi Indians of inland Labrador and Quebec. Hunting, fishing, trading tools and raw materials and burying their dead were definable activities. The roots of this culture may have extended back several thousand years to the Paleo-Indian hunters of the now submerged continental shelf. (Ref. 4)

THE UNITED STATES

The reader is advised to review the preceding two paragraphs concerning Maine and Washington State. In the east the eastern Archaic Culture was changing about 2,000 B.C. in that there was the manufacture of some crude pottery and there was an increased attention to burial observances. Some call this the beginning of the Woodland Culture and others call it simply the Late Period of the Archaic of the Eastern Woodland. At the same time, in the southwestern states, specialized desert cultures continued to develop from the Archaic. As recorded in the last chapter, the Cochise began cultivating corn sometime from 3,000 to 2,000 B.C., providing them extra nourishment for their uncertain diet. Squash now was also brought up from Mexico and tiny gardens of both have been found all over the Cochise wandering area. Santa Catalina Island, twenty miles off the California coast, as previously noted, was inhabited and some forty Indian town sites have been identified. It is obvious that coastal Indians had facilities for ocean travel. (Ref. 5, 6, 7, 8)

MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

The "Pre-Classic Age" of Middle America traditionally began about 2,000 B.C. with Mayan ancestors being simple village farmers, although the earliest Maya carbon dating on the Caribbean side of Yucatan goes back to between 2,750 and 2,450 B.C. It is entirely possible the Maya beginnings may go back to Ecuador at 3,000 B.C. while the Olmec civilization began separately on the Gulf coast much later. In 1977 Norman Hammond (Ref. 9) published results of

archeological excavations in Belize (formerly British Honduras) which seem to confirm the origins of the Maya back at about 2,600-2,500 B.C. He describes a lowland pottery called "Swash", found in burial sites with human skeletons. The adults among the latter showed advanced tooth wear, suggesting abrasives in their diet. The Maya steeped corn in slaked lime before boiling, to soften it (and incidentally it released certain amino-acids not otherwise absorbable) and this lime, along with grit derived in the grinding process probably accounted for the tooth wear. These individuals also constructed raised earth platforms in swamps by digging out drainage channels and throwing the mud up to make platforms on which various crops were grown. The presence of jade, not naturally present within 350 kilometers, indicates a trade network. Their Swasey ceramics - colorful, decorative and mature - are different from that of Mexico and the southern United States of 2,500 B.C., but are similar to Ecuadorian pottery of this period. Throughout Central America maize-farming had become the basis of life by 1,500 B.C. and the farmers lived in permanent villages. By the same date in the Tehuacan Valley of Mexico, there was complex village life, pottery, elaborated religious rituals and intricate social organization. Corn and pottery have been dated to 2,000 B.C. in Panama. (Ref. [10](#), [11](#), [12](#), [13](#), [14](#))

SOUTH AMERICA

Valdiva, as a coastal society in Ecuador, like Panama, had corn and pottery by about 2,000 B.C.¹. Evans and Meggers, of the Smithsonian Museum, are impressed with the similarities between Valdivian pottery and the Jomon pottery of Japan, believing Ecuador may have been the landing place of a Japanese immigration, thus bringing one more possibility of Asian diffusion to the Americas. We shall examine other ideas in other chapters. Potatoes were cultivated in the Andes by 3,000 B.C., manioc was grown on the tropical lowlands and there were domesticated animals in South America shortly after 2,000 B.C. Ceremonial centers found along the desert coast of Peru date to about the same time as did evidence of metal working. The Ancon Yacht site on the coast of Peru, dated 2,500 to 2,000 B.C. showed chipped leaf points, string, turned cloth and baskets, wooden tools, shell fishhooks and

cultivated plants which included gourds, cotton and chili peppers. The Peruvians used the potato by 3,000 and soon domesticated the guinea pig for food. Coastal Peruvians gathered protein-rich shell fish off the beaches by 2,800 and by 2,500 B.C., when the villages were large, far out ocean fishing for larger fish was common. (Ref. [16](#), [17](#), [18](#), [19](#), [20](#))

Early farmers were probably well established on the Ecuadorian sea coast and river plains by 3,000 B.C. Contact with Mesoamerica was certainly possible by water, but otherwise there was a 2,000 mile jungle stretch between them. What Engel (Ref. [21](#)) calls the "bean planters society" came into being in the lower central Andes, along with cotton clothes and underwear at about 2,000 B.C. The bones of sea-lions are mixed with those of these early agriculturalists. Excavations in Venezuela, like adjacent areas, show evidence of manioc and sweet potato cultivation from between 3,000 and 2,700 B.C. Both of these are root crops, but manioc required special preparation to be made palatable. (Ref. [22](#), [23](#), [24](#))

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1. Thomas (Ref. 15) says the Ecuadorians had pottery even earlier, at 3,200 B.C.

America: 1500 to 1000 B.C.

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

The Arctic Small Tool tradition continued across northern Canada to Greenland and the Pacific coast Indians continued their salmon fishing, without attempting cultivation. By 1,000 B.C. they were building villages along the Snake, Columbia and Fraser rivers south of the Snake, there were large oval dwellings with floors and a timber frame, usually about twenty-five by thirty feet. (Ref. [1](#))

THE UNITED STATES

The Indians of North America originally had lived by hunting game and gathering wild foods, but about 3,000 years ago they began making clay vessels, an innovation that accompanied the appearance of agriculture in many areas. The pottery found in various excavation sites in the United States has a distinctive gritty temper and is often decorated with fabric or cord impressions. One village, called the Baumer site, in southern Illinois, covered more than ten acres and was made up of houses about sixteen feet square. The use of local strains of corn, beans and squash after 1,500 B.C. gave people the surplus of food and time needed to engage in some communal activities. The first signs of mound building appeared in the middle west about 1,000 B.C. as some villages began to bury their dead under low earth mounds. In the southwest the Cochise continued their gradual transition from hunter-gatherers to true farmers. (Ref. [2](#), [3](#))

MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

Village life in Mexico continued to show more advanced societies. In the Oaxaca Valley there were villages with agriculture dominant by 1,300 B.C. Each village contained ten to twenty houses which were single family units made of wattle and daub, all opening into a common plaza. By 1,200 in San Jose Mogote in the same valley, the people began to build large platforms with limed walls and floors. (Ref. 4, 5) Recent excavations at Dzibilchaltun in northern Yucatan indicate that this site, which contained one of the largest of the Mayan cities of the late post-classic period of A.D.600 or later, had been continuously occupied since 1,500 B.C., so that in all probability pre-Mayan or Mayan people lived there with an ever increasing level of civilization for over 2,000 years.

The big story of this period, however, is that of the Olmecs who had developed a civilization in the humid, low-lying, forest region of southern Veracruz and western Tabasco by 1,200 B.C. Most authorities agree (with a few dissenters) that this remarkable society appeared **suddenly**, without known antecedents. They were the first Meso-Americans to handle large masses of stone in monumental sculptures and they may have been responsible for extending the growth of maize in that area, chiefly by example or leadership, as they were not the basic inhabitants of the region. The latter were ethnically Huastec while the Olmecs were apparently an hereditary ruling class who promoted efficient farming techniques, long distance trade networks, large temples and public buildings, fine art, an official state religion and social stratification. The question of pre-Columbian contacts with America has been brought up time and again, particularly regarding this advanced, suddenly appearing Olmec civilization, but the nature and method of such contact and whether or not it occurred at all, continues to be debated.

Like the Egyptians, the Olmecs (and later Mayas) wrote in hieroglyphs, developed a calendar and predicted the movements of planets. These Central Americans built flat-topped pyramids similar to the ziggurats of Mesopotamia and decorated those with bas-reliefs showing priests with Semitic facies and long beards. There is even some botanical evidence of European contact in that the Olmec successors wore garments from a strain of cotton that seemed to be a cross between a local, wild type and the long-staple Egyptian cotton. The latter has thirteen large chromosomes and the native central and South American cotton, which was short stapled,

had thirteen small chromosomes per cell, but the cotton used for cloth later in Central America was a hybrid of the two above and contained twenty-six chromosomes, thirteen small and thirteen large. One has to wonder if it is just coincidence that these Olmecs developed writing, calendar systems, pyramids etc. directly at the terminus of the strong Atlantic Canary Current, flowing from the bulge of Africa through the Canary Islands to the Gulf of Mexico at the base of the Yucatan peninsula. The swampy, unfavorable jungle coast in which this civilization developed would suggest that it must have arrived almost in full bloom, from the sea. The Egyptians and Phoenicians knew more about astronomy, the key to ocean navigation, than the later European contemporaries of Columbus and Pizarro, and it is definitely known that the Phoenicians had settlements all the way down the Atlantic coast of Morocco by 1,000 B.C. (Ref. [6](#), [7](#), [8](#))

There is also the possibility of still other peoples being the source of early foreign diffusion to the New World. Heyerdahl (Ref. [9](#)) lists fifty-two examples of common characteristics seen in the early civilizations of Asia Minor (Hittite), Cyprus and Crete and the early societies of Central America and Peru. These include priest-king dynasties in sun-worshipping administrations, brother-sister royal marriages, fully developed script writing¹, paper manufacture from vegetable fibers, stone masonry of amazing accuracy without the use of mortar and with methods of long range transportation of gigantic stone blocks, colossal stone statues, repetitive representations of a bearded man (all true Amerindians of Siberian origin should be beardless) fighting a giant snake standing on its tail, a bird-man standing on a plumed serpent (See Hittites, this chapter), construction of ziggurat types of pyramids, mummification of deceased royalty, trepanning of skulls, circumcision as a religious ritual, cities of adobe houses separated by streets and with water and sewer systems, large scale terrace agriculture with irrigation and fertilizers, similar cotton looms and garments, identical leather and rope sandals (although the latter were useless in the tropical swamps), feather crowns used by nobles, similar organization of standing armies and weaponry, similar tools and utensils, use of red dyes from mollusks, identical stages of metallurgy with outstanding gold work, ceramic, polychrome funeral ware, clay models of daily life, as well as a universal female goddess, stamped seals, curved wooden figurines,

understanding of the "zero" concept, belief in their own origin in the first century of the 3rd millennium B.C., remarkably high standard of calendar system and finally the same ocean-going reed ships with canvas sail hoisted on a double-legged mast. We should also note that the date of the blooming of the Olmec civilization at 1,200 (+ 200) B.C. is the same time often given for the Thera upheaval in the Mediterranean, with the subsequent possible displacement of the Sea People who roved the Mediterranean and possibly the Atlantic! Self portraits of the Olmecs on colossal monoliths have shown two contrasting types - one with Negroid physiognomy and the other with typical Semitic features with long flowing beard - all this in the swampland exactly at the end of the Canary Current. (Ref. 10)

It is difficult to be certain of the exact physical type of the original Central and South American Indians, since the populations that came back to life after the territories became independent of Spain, are now so cross-bred with Europeans, Chinese and Africans that identification is impossible. The Chinese factor brings up still another diffusion theory that has been advanced as late as 1975 by Betty Meggers (Ref. 11) of the Smithsonian Institute, who believes that the invaders were Chinese from the Shang Dynasty! As others have, she points out that in Meso-America² as late as 2,000 B.C. there was only one village per kilometer in the estuary systems along the Chiapas-Guatemala coast, but about 1,200 B.C. something unusual occurred - the sudden appearance of the Olmec civilization in full flower - and she relates that this event was felt almost simultaneously over almost all of Mesoamerica. This corresponds in time to the end of the Shang Dynasty, in China. Meggers feels that one of the most striking aspects of this new society was the extent of traffic in raw materials such as obsidian, basalt, magnetite, ilmenite, hematite, serpentine and jadeite, along with the transportation of the heavy, basalt boulders over long distances. She points out a great number of shared cultural features of the Shang and the Olmec societies including:

1. writing, stating that a few, often repeated Olmec symbols resemble Shang characters, and later Maya glyphs were read top to bottom in Shang fashion (characters of Minoan Linear A of Crete were read similarly)
2. jade, a primary commodity of long distance trade in both

societies

3. batons as a symbol of rank, some with bifurcated tops
4. feline deity, the Shang tiger and the Olmec jaguar both associated with the earth god and both often drawn lacking a lower jaw
5. worship of mountains
6. cranial deformation, apparently artificially produced in the center of the head of rulers
7. large groups of scattered villages with central service Centers
8. the construction of rectangular platforms with a north-south orientation.

When asked why the Mesoamericans did not use the wheel, which was certainly used by the Shang, she replied, as others have, that the Americans had no use for the wheel in the absence of roads and draft animals, the ruggedness of the terrain and the ability of a man to carry more than his weight in fragile cargo.

As might be expected, refutations of Meggers' theory soon appeared. David Grove (Ref. 12) of the University of Illinois says that the society which we have mentioned as being in the Oaxaca Valley between 1,500 and 1,400 B.C. was a complex culture and perhaps preceded those of the Gulf coast, and would more apt to be the Olmec ancestor than the Shang. Furthermore, he says that the jade carving may not even have been Olmec and that the feline deity idea came up from South America. He also makes the point that excavations by Coe at San Lorenzo on the Gulf coast since 1970 have revealed significant Olmec cultural levels which predate those at La Venta, but also pre-Olmec levels, suggesting that the Olmec culture appeared gradually rather than suddenly. Meggers immediately replied to this in a publication in 1976 (Ref. 13) stating that twenty-three of the references she had consulted for her previous publication had been written between 1970 and 1974 and that she was still convinced that Shang refugees were involved in Central America. The concept of the sudden appearance of the Olmec society seems to be given another boost by the 1977 publication, *The Encyclopedia of Archeology* (Ref. 14) which discusses recent investigations at San Lorenzo by Yale University, describing that center as having the longest stratigraphic history of any known Olmec center and that it was constructed on an artificially raised mass of land, built by the Olmecs to support a

number of earthen pyramid constructions, plazas and mounds, all laid out along a north-south axis. The writer indicated that the Olmec Culture was emerging at this site just in 1,250 B.C. and that most of the pure Olmec monuments and structures actually date from 1,150 B.C. onwards.

Whether or not the Olmec civilization was imported or local in origin, there is no doubt but what this was the mother of all later true civilizations in Central America, including the Mayan. Probable extensions of the Olmec into more central Mexico are indicated by recent excavations at Chalcatzingo in the state of Morelos, about 85 miles southeast of Mexico City. Radio-carbon datings are from 1,170 B.C. on, and the findings include bas-relief carvings, platform complexes, etc., all typical of the Olmec style. It has been postulated that it was a center for controlling the trade of highland raw materials (obsidian, jade, iron ore and possibly cotton) and channeling these on to the Gulf coast centers. Contacts with nearby Oaxaca seem to have stimulated cultural growth there, as well (or was it vice-versa, as suggested by Grove?). At any rate, within a few centuries, Oaxaca, with its vastly greater resources and richer agricultural possibilities, with irrigation, actually began to be the dominant partner. (Ref. [15](#), [16](#))

Still another, separate culture is suggested by fairly recent excavations at La Victoria, Guatemala, where Micheal Coe (Ref. [17](#)) has uncovered iridescent ceramic pottery as a unique technological feature dating from 1,500 to 800 B.C. This same unusual pottery has been found also in Peru, and it seems possible that the technology may have gone from Guatemala to Peru where the earliest dating by radio-carbon is 714 B.C. (+ 200 years). If this diffusion did occur, it was probably by boat for that is only a 1,300 mile sea trip and has been shown possible by Heyerdahl's raft voyage and the presence of ancient sherds on Galapagos Islands, which lie 650 miles off the Ecuador coast. Other pottery of Middle America was highly developed but had no local ancestry and Coe suggests that it possibly migrated down from the Woodland Culture of North America.

[SOUTH AMERICA](#)

Several of the immediately preceding paragraphs, particularly those concerning the possible cultural derivations from pre-Columbian

European migration were applicable to parts of South America as well. We should now make some observations peculiar to the latter, however. For one thing, the South Americans did not have writing and why this did not arrive with other Mid-American cultural features, if there was indeed early contact, remains an enigma. As far as the illiteracy is concerned, however, we shall discover later in this text that illiteracy did not hamper the Scandinavian Vikings or the Mongol Khans. The most spectacular excavation, abandoned between 1,500 and 1,400 B.C. according to carbon-dating, is El Paraiso, near Lima, just three miles east of the ocean on the Chillon River valley. This consists of seven architectural units, of which one has been pretty well restored. The units were enormous buildings made of two rows of heavy quarried and roughly-shaped stone blocks cemented with unfired clay and the gaps filled with rubble. The buildings were of various sizes and shapes, some a thousand feet long; some almost square 165 by 132 feet. There were wide stair cases and various halls and rooms, some of which must have been for storage while others were for festivities and still others living quarters. A single building would reach thirty feet high. A similar building complex has also been found higher up in the valley, thirty-six miles from Lima. Trepanation and deliberate deformation of skulls (see also Mexico, Central America and the Caribbean) was practiced frequently in this period. In the last chapter we discussed the "bean planters" of Peru. Archeology indicates that El Paraiso and all the bean planters' villages were abandoned at about the same time, apparently around 1,500 to 1,400 B.C.. No explanation has been found for this rather sudden and complete disappearance of this society, and furthermore it appears that the Peruvian coast probably remained deserted for one to three centuries thereafter. Skeletons supplied to physical anthropologists by Frederic Engel from the vicinity of the last of these pre-ceramic, bean eaters show the presence of a different ethnic group with cross-breeding, as evidenced by the presence of brachycephalic and mesocephalic skulls in addition to the older dolichocephalic. One can image that foreign ethnic groups may have brought a plague that killed the bean planters, but one cannot rule out severe climatic change as the cause.

Corn growing had appeared in the central Andes, both in the cordillera and on the coast by 1,500 B.C. Although previously used on the Caribbean coast, pottery does not seem to have been

introduced in western Peru until about 1,300 B.C. Engle (Ref. 18) had found some in the central Peruvian lower Andes carbon-dated in the 3,300 to 3,500 B.C. range, so perhaps both corn and pottery were brought over from the eastern slopes of the mountains. Near Lake Titicaca and in the Cordillera de la Viuda, northeast of Lima, early types of pottery have been found dating between 1,500 and 1,300 B.C. and this pottery has subsequently been found everywhere in caves and rock shelters in the upper Andes. The corn raisers and pottery makers were apparently a new, migrating people, and did not represent merely a change in culture of the bean planters. Basically by 1,320 B.C. Americans ate corn as the Europeans ate wheat and the Asians rice. Seafood, especially shellfish, however, always played an important part of the Andes peoples' diets, supplying protein that they lacked in the absence of meat. A deep refuse midden on the coast of Peru has revealed a cultivated gourd, used for various artifacts in a fishing culture. These were only later found in Polynesia. By 1,000 B.C. Peruvians had hallucinogens and alcohol and were smoking cigars, although the leaf was not tobacco. (Ref. 19, 20)

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[209] SWANSON, EARL H; BRAY, WARWICK; FARRINGTON, IAN, The New World. (E.P. Dutton & Co., Inc., New York, 1975).

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[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

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[141] MEGGERS, BETTY J., "The Transpacific Origin of Meso American Civilization: A Preliminary Review of the Evidence and its theoretical Implications", *American Anthropologist* 77: 1-271, 1975.

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[80] GROVE, DAVID C., "Olmec Origins and Transpacific Diffusion: Reply to Meggers", *American Anthropology* 78: 634-637, 1976.

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[142] MEGGERS, BETTY J., "Yes if by Land, No if by Sea: The Double Standard in Interpreting Cultural Similarities", *American Anthropologist* 78: 637, 1976.

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[81] GROVE, DAVID C., "Archeological Investigations at Chalcatzingo, 1972, 1973." *National Geographic Reports Vol. 12, 1971 Projects*, pp. 287-304, (National Geographic Society, Washington D.C., 1980).

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[36] COE, MICHAEL D. "Archeological Linkage with North & South America at La Victoria, Guatemala", *American Anthropologist* 62: 363-393, 1960.

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[62] ENGEL, FREDERIC ANDRE, *An Ancient World Preserved*. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[62] ENGEL, FREDERIC ANDRE, *An Ancient World Preserved*. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

1. Not in South America.
2. Strictly speaking the term "Mesoamerica" includes Guatemala, Belize, Western Honduras, El Salvador and only southern Mexico, including Yucatan.

America: 1000 to 700 B.C.

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

The Arctic Small Tool tradition continued in the far north. Centered at the Fraser River delta about 1,000 B.C. and extending from southern Alaska down to northern California, was the Northwest Coast Tradition. Eskimo and Old Cordilleran traditions may have contributed to this society which included hunting and gathering of multiple river and marine foods - mollusks, salmon, halibut, whale, seal and sea otter. Out of wood the people made canoes, plank houses, carved household items and wooden slat armor that may have been derived directly from Asia. (Ref. [1](#))

THE UNITED STATES

In the United States area, the Burial Mound I period of the Woodland tradition was typified by the Adena Culture of Ohio, Indiana, Kentucky, Pennsylvania and West Virginia. Similar areas could be found, however, from Canada through Minnesota and down to the Louisiana-Texas border. The characteristic traits were woodland pottery, burial mounds, some as high as 66 feet, and the beginnings of agriculture. Indians lived in small, scattered villages with round houses, using wattle for walls and thatch for roofs. (Ref. [2](#), [3](#)) In southeast United States an Archaic type of culture extended throughout the period under review. Studies of remains have been made in the St. John River of Florida and the Savannah River culture of the river valley by the same name. The major weapon was a short heavy spear propelled by a throwing stick while bone fish-hooks, stone net weights and stone axes have been found. Fiber

tempered pottery had been in use in this area for a long time. (Ref. 4)

And now we must mention the recent and very controversial work of one Barry Fell. Professor Fell is a teacher of marine biology at Harvard University, but he also claims an extensive education in ancient Celtic languages at Edinburgh University and thus professes to be one of the few who can read ancient scripts in Celtic and other ancient tongues, including Egyptian, Phoenician and Libyan. It is his assertion that in various parts of the United States he has found stone inscriptions in those ancient tongues, seeming to prove that those people visited or even colonized parts of America in this early period. Of special note, in the time bracket of this chapter, is his claim of Phoenician inscriptions, written in the Celtic alphabet, at a site called Mystery Hill, New Hampshire, dated to 800 to 600 B.C. He feels that Goedellic Celts from Spain and Portugal explored and settled multiple areas in New England during the first millennium B.C. and that the Punic phase just mentioned undoubtedly followed an original Celtic occupation. In addition, he has allegedly translated the so-called Pontotoc stele of Oklahoma as an extract from the "Hymn to Aton", a chant of the pharaoh Akhnaton, dating from the 13th century B.C., although Fell says the Oklahoma version can scarcely be older than about 800 B.C., believing it was the work of an early Iberian colonist writing in the script from the Cachao-da-Rapa region of northern Portugal. Similarly he writes that the Davenport stele of Iowa has three separate scripts,- Egyptian hieroglyphics alongside Iberian and Libyan scripts. Previously these stelae had been considered as fakes. Fell's interesting hypotheses have not yet been generally accepted and seem to have been more or less ignored by the professional archeologists. (Ref. 5)

In the Cochise area of southwest United States a new and more vigorous strain of corn was imported from Mexico about 1,000 B.C. A new plant, the red kidney bean, also appeared as the Cochise began to build simple pit-houses and group themselves together in small villages. As agricultural activities made easier living, they had time to develop early pottery forms and soon figurines of people and animals. Findings in the refuse of the Ventana Cave, some 100 miles from Tucson, have revealed these gradual changes from hunter to farmer. (Ref. 6)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

In previous chapters we have mentioned the early cultures in both Oaxaca and Tehuacan which are adjacent areas in southern Mexico. At Tehuacan the Ajalpan cultural phase ran from 1,500 to 850 B.C. and excavations have revealed that about 40% of their diet came from agricultural products, 31% from wild plants and 29% from meat. Various settlements were scattered along the waterways, with caves for summer occupation to escape the heat. Population increased rapidly, as agriculture was improved. The next phase, beginning in 850 B.C., was the Santa Maria, which saw the rise of templed villages, a figurine cult, and some irrigation. (Ref. 7) The Zapotecs of Monte Alban (Oaxaca) developed true civilizations with populations in the tens of thousands, a hierarchy of social classes, a civil service, priesthoods and specialists in commerce, administration and government.

The Olmecs at the base of the Yucatan peninsula had similar progress and a distinctive culture dominated by a powerful religion with sky or rain deities in the form of jaguar people with drooping or snarling feline mouths and deformed heads. They originated the bar and dot calendar which traditionally has been credited to the later Mayas and they had fine jade carvings. As their population increased they continued to live in villages scattered throughout the forest, but at intervals they built impressive centers for ceremonial, civic and perhaps commercial use. Each center was the focal point for the life and culture of some 10,000 people.

Four types of exotic maize found in Guatemala were entirely confined to the western coast area and all are of South American origin, giving further suggestion of maritime contact between Ecuador-Peru and Guatemala. Coe (Ref. 8) has shown that boats, even without the special Peruvian guaras (a system of center-boards acting as adjustable keels) could sail along the South American - Middle American coasts, going one direction at certain times of the year and reversing direction at other seasons, similar to the monsoon wind system of the Indian Ocean. (Ref. 9, 10, 11, 12)¹

1

C. This was later to become a great tool production center because of adjacent deposits of chert nodules, as described in the Additional Notes of the 1st century C.E. (Ref. 13)

SOUTH AMERICA

About 800 B.C. one of the Peruvian states, the Chavin, underwent an expansion much like the Olmecs did in Central America. This civilization, with social classes, bureaucracies, and priests, soon spread throughout the northern half of Peru. Heyerdahl (Ref. 14) writes that this civilization appears to be a direct extension down the coast from the Olmec because there were multiple closely related jungle civilizations in a narrow coastal line, apparently in contact one with the other by sea, while outside this narrow civilized strip there was nothing but barbarian jungle tribes of Amerindians throughout Venezuela, Guiana and all of Brazil. And yet there were many differences between the Chavin and the Olmec' Mesoamerica had writing, South America did not; Peru had metallurgy by 300 B.C., Mexico not until about A.D. 1000. Engel (Ref. 15) does not relate the South American culture to the Olmecs, but does agree that it apparently developed rapidly, perhaps in a single generation and occupied most of the area of present day Peru. Beneath the Chavin layer (archaeological speaking), occasionally complete "pre-ceramic" villages can be found. The Chavin traits included low-relief ornaments made on hammered gold leaf, cigars (but not from tobacco), carved and polished stone vessels and tools including notched axes and cylindrical maces - some of the stone pieces so perfect that they seem to be replicas of objects previously made in metal. The Chavins also used anthracite mirrors and constructed very large architectural units, some several hundred yards long. The decorative themes almost all derived from five basic subjects, as follows:

1. African style mouth with thick lips. (See Heyerdahl's ideas under **Central America**)
2. Snake-like bodies protruding from demoniacal or human figures. Some are reminiscent of a crocodile snout, considered sacred in Africa
3. Fangs, shaped like curved swords
4. Crenellations, staircases or geometric forms recalling models of buildings or fortresses
5. Vessels representing human or demonic heads, animals and plants

The center of the Chavin society was the village of Chavin de Huantar, probably a temple at 10,000 feet altitude consisting of a massive building 500 feet long in an inter- Andean valley on the west bank of the Mosna River. Engel thinks that Chavin art may well be the product of foreign immigration, but from where? Some have said South Asia, some China and Meggers (Ref. 16) says the Jomon Culture of Japan. Engel is impressed with the resemblance to Oaxaca and Vera Cruz. Las Haldas became another great Chavin complex, measuring 1,220 feet long by 260 feet wide and covering 7 1/2 acres, with a platform overhanging the sea at a height of 130 feet. Chavin influence reached as far south as the Mantaro basin in central Peru, as indicated by pottery found there. (Ref. 17)

Some would date the beginning of the Tiahuanaco Society to 800 B.C. (Ref. 18) but since this date remains very debatable and since the full development of this society was reached only later, we shall defer discussion of it until the 5th century B.C.

In the 2nd millennium and this part of the 1st millennium B.C. a drier climate reduced the Amazonian forests to scattered refuges and during this period migration of various tribes may have been relatively easy. The resulting spread may help to explain the multiplicity of languages spoken there since then. (Ref. 19)

1

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[155] NATIONAL GEOGRAPHIC SOCIETY, "Archeological Map of Middle America, *Ibid.* Oct. 1968.

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[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

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[36] COE, MICHAEL D. "Archeological Linkage with North & South America at La Victoria, Guatemala", *American Anthropologist* 62: 363-393, 1960.

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[304] HESTER, THOMAS R.; SHAFER, HARRY J., ET AL, "Colhas's Stone Tool Industry", *Archaeology* 36, No.6: 46-52, Nov./Dec. 1983.

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[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

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[255] ARCHEOLOGY OF SOUTH AMERICA, Cartographic Division, National Geographic Society, March 1982.

18

[255] ARCHEOLOGY OF SOUTH AMERICA, Cartographic Division, National Geographic Society, March 1982.

19

[256] INDIANS OF SOUTH AMERICA, Cartographic Division, National Geographic Society, March 1982.

America: 700 to 601 B.C.

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

The Arctic Small tradition continued in the far north as previously described.

Indian life throughout Canada was essentially as recorded in the last chapter.

THE UNITED STATES

Here again, as in the last chapter, we run into the controversial theories of Barry Fell (Ref. 1). Various rock inscriptions of New England, some originally found years ago¹ and others just recently, as at Union, New Hampshire, and on Monhegan Island off the coast of Maine, have now been interpreted by Fell as being Tartessian Punic, recording arrivals of Phoenician ships from Spain. It is his hypothesis that these voyagers, dated from 700 to 600 B.C. were probably not explorers but merchants, trading with already settled New England Celts'

In the midwest, the Burial Mound I period of the Adena variation of the Woodland tradition continued. Here again Barry Fell introduces new controversy when he states that excavation of some of the mounds have revealed copper and bronze tablets, pottery, figurines, etc. showing unmistakable similarities to ancient Phoenician constructions. He says these are located in West Virginia, Iowa and Ohio, along major rivers. Other students of the Adena Culture mention only stone ornaments and engraved slabs in these mounds, although the later Hopewell mounds (see 3rd century B.C.) certainly had various metals, but of local origin. In the southwest

United States the San Pedro phase of the Cochise Culture continued as a desert society, with increasing population and improvements in farming and other skills. (Ref. 2, 3, 4)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

The Olmec civilization, now some 600 years old, reached the height of its development with a center at La Venta, Mexico. Every village was linked in an elaborate network of trade up and down the valleys and between the highlands and the coasts. Salt, maize, obsidian, oyster shells, stingray spines, sharks' teeth, conch and turtle shells were all traded widely. The Olmecs were not only great sculptors but also carvers of jade, from which they made statuettes, jewellery and axes. To judge from their art, the Olmecs had two contrasting ethnic types, one remarkably Negroid, with thick lips, broad noses and round faces and the other strikingly Semitic with sharp profiles, hooked noses, narrow faces and lips and pronounced beards, usually shown as either square or pointed goatees. Neither of these types would seem to have come across the Bering Strait. (Please also see pages 124 to 127 and the chart which follows the next section in this chapter). The Mayan calendar indicates activity in Central America by 613 B.C. but little actual knowledge of those people is available for another century or two. (Ref. 5)

SOUTH AMERICA

The Chavin civilization continued in northern Peru and perhaps the Tiahuanaco existed in the highlands on the Bolivian border, but we shall omit discussion of this group until the 5th century B.C. As in Central America, there are many equivocal findings suggesting the possibility of multiple origins of South American peoples, rather than a single ancestral strain from Bering Strait migrants. Some of the features which contribute to this confusion are now listed.

NOTE: Insert SPECIAL SECTION, UNEXPLAINED FEATURES OF NATIVE AMERICANS

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1. One such inscription was described and recorded from Mount Hope Bay, Bristol, Rhode Island, in 1,780 by Ezra Stiles, later president of Yale College

America: 600 to 501 B.C.

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

There was no real change in the human condition in North America at this time. The Arctic Small Tool tradition is usually divided into two stages with what has been called the Dorset Stage emerging at about 600 B.C. This was an harpoon based hunting culture extending all across the far north.

THE UNITED STATES

The Adena Woodland Culture thrived in the east and the middle west of the United States and the influence of the Adena burial customs, religion and art can be identified over a large area, including Chesapeake Bay and New York state. In the 1880s Professor Cyrus Thomas surveyed over 2,000 mound sites and collected over 4,000 specimens of this and the later Hopewell Culture. The San Pedro phase of the Cochise Culture continued in the southwest. (Ref. 1, 2)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

In the Olmec center at La Venta a clay pyramid 103 feet high was erected and surrounded by four colossal stone heads. At Monte Alban, Mexico, one can still see rows of carvings with Olmec features. At Tikal, Guatemala, pottery has been found dating to 600 B.C. similar to south American pottery of the same date, suggesting that trade existed between the two areas. About 500 B.C., however, the Olmec people seem to have collapsed and disappeared, perhaps

passing on their knowledge to the Mayas who began to occupy some of the same territory. Archeological finds establish a human presence in Vera Cruz as early as 5,600 B.C. and this may have been from ancient times a thorough-fare for migration of Huastec and Olmecs along the coastal plain. (Ref. 3, 4, 5)

The zero point of the Mayan calendar corresponds to our 3,113 B.C. and brings up the interesting questions as to the ultimate origin of those peoples and how they were able to triumph over the jungle to establish a type of civilization. The most likely hypothesis is that they were agriculturalists originally and that they moved in from adjacent river-estuarine lowlands. The bulk of archaeological data points to an original incursion of the lowlands during the first half of this 1st millennium B.C., but the earliest ceramics from Tikal and UJaxactun date to about 600 B.C. There may have been two stages in the development of the Maya society, with the first stage characterized by the dissemination of riverine settlements from the tropical Lowlands of the Pacific and Gulf Coasts in the general area of the Isthmus of Tehuantepec and the second stage occurring when Pre-classic groups abandoned the rivers and moved into the interior. This later stage appears to be linked to the beginnings of Mayan civilization. The change to the interior habitat involved many problems not the least of which was the obtaining of drinking water. The solution to this problem was apparently found in the construction of artificial reservoirs in impermeable clays. Fed by artificially constructed drainage systems they allowed for the storage of millions of gallons of water. For carbohydrates, the relatively small crops of maize that could be raised with the slash and burn method, was supplemented by the ramon, a tree of the fig family which produces dense carbohydrate seeds in tremendously large quantities. Storage places for these seeds have also been found. Now shut off from river proteins, deer hunting was of importance, a fact confirmed from the examination of hidden contents from Tikal. As the Pulestons (Ref. 6) have pointed out, the necessity of organizing labor to construct the large public reservoirs may well have been a catalyst for the development of social stratification and the developing concept of a state; and the utilization of the ramon would have allowed stable settlements with the release of much male labor for use in various other channels.

SOUTH AMERICA

The Chavin civilization continued in Peru throughout this century but then about 500 B.C. their cities were rather suddenly abandoned¹. Some writers say that Paracas developed its own individual type of pottery in the south at this time, but Engel (Ref. 7) does not date Paracas I until another 300 years. Marvin Allison (Ref. 8) has found multiple mummies from various Peruvian and Chilean coastal burials, some dating to 600 B.C., with tuberculosis, especially of the bones and joints and he believes this must have been a common disease of the western coast. The first known densely populated centers on the north coast of South America date from 600 B.C. to 150 B.C. and have been called the "Salinar phase" by archaeologists. (Ref. 9)

In the light of Barry Fells 's hypotheses concerning possible European and Middle East voyagers to the new world in ancient times, it is of interest that a stone inscription in Phoenician script was allegedly discovered in Parahyba Province, Brazil, in 1886 and a translation published in 1939 indicated that it had been written by Canaanites of Sidon who had left the Red Sea area in 536 B.C. (the 19th year of the reign of Hiram) with ten ships, sailing along the coast of Africa for two years, under the orders of Necho, pharaoh of Egypt. The writers note that they became separated from their flagship and were carried far away and landed on this unknown (Brazilian) coast. When first put forth this finding and translation was declared a forgery, but more recently it has been accepted as genuine by many authorities. (Ref. 11) The south Atlantic ocean currents coming from the African Cape could easily result in this drift. Ornate ceramics decorated with animal and bird figures were characteristic of the Brazilian Barrancoid tradition of this and many adjacent centuries (Ref. 12)

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[155] NATIONAL GEOGRAPHIC SOCIETY, "Archeological Map of Middle America, Ibid. Oct. 1968.

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[236] WILKERSON, JEFFREY K. "Man's Eighty Centuries in Veracruz", National Geographic 158: 202, Aug. 1980.

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[261] PULESTON, DENNIS E. AND PULESTON, OLGA STAVRAKIS, "An Ecological Approach to the Origins of Maya Civilizations", Archaeology 24: 330-3371, Oct. 1971.

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[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[3] ALLISON, MARVIN J., "Studies of Pre-Columbian American Diseases 1971-1976, National Geographic Research Reports. Vol. 12, 1971 Projects, pp. 1-11 (National Geographic Society, Washington D.C., 1980).

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[255] ARCHEOLOGY OF SOUTH AMERICA, Cartographic Division, National Geographic Society, March 1982.

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[255] ARCHEOLOGY OF SOUTH AMERICA, Cartographic Division, National Geographic Society, March 1982.

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[255] ARCHEOLOGY OF SOUTH AMERICA, Cartographic Division, National Geographic Society, March 1982.

1. The National Geographic Society (Ref. 10) reported in 1982 that this society lasted until 300 B.C.

America: 500 to 401 B.C.

AMERICA

NORTH AMERICA

The far northern Eskimo Culture, the midwestern Woodland Adena Cultures and the southwestern Cochise traditions continued as before. In southern Utah's Barrier Canyon (now Horseshoe Canyon) on the Colorado River just before it goes into Arizona, rock paintings and figurines dating back at least to 500 B.C. have been found. They may date much earlier. Barry Fell (Ref. 1) has further astounding hypotheses dating to this century.

For example, he has identified a stone temple at South Woodstock, Vermont, to be of Celtic construction, dated after 433 B.C. and like others, oriented with its long axis at compass bearing 123 degrees, which is the horizon azimuth of the rising sun on the December 22 winter solstice, important in the Celtic religion. He says that many monoliths characteristic of any Celtic landscape are found in New England. And still more - Fell states that the Zuni tongue in Arizona is basically Libyan, taken from the limited, racy and colloquial vocabulary of Libyan navy men sailing in this century from ships of Tarshish or Carthage. He insists that the basic Zuni language of today is similar to Coptic, with borrowed elements from Spanish and English. One of the problems involved in accepting this is that most authorities do not think the Zuni existed as a definite people at this early time, and that they developed from the Mogollon Culture much later. (Ref. 2, 3)

MEXICO AND CENTRAL AMERICA

The middle America "ball-game", a curious, violent cross between soccer, volley-ball and pelota seemed to have some religious

significance and appears to have been developed by the Olmecs, although it became popular all over middle America by 400 B.C.¹ As noted in the previous chapter the Maya probably started their differentiation from other primitive peoples in the scrub-covered lowlands of northern Yucatan and Guatemala's Peten about 2,500 B.C.², slowly struggling against the invading forest. Clearing land was difficult and was done chiefly by burning. Their staple food was maize, of ten with several varieties grown in the same field. Although their land was relatively infertile, except along the river flood plains, it was rich in building materials - limestone rock, sandstone and volcanic rock as well as hard stones. Up until 300 B.C. is known as the formative period of Mayan history, and there is no doubt but what much of their advanced culture was transferred from the preceding Olmec Society. (Ref. 4, 5)

Costa Rica, on the narrow isthmus leading to Panama and South America has a long prehistory, but available artifacts date chiefly from 500 B.C. onwards. In a new chronology for Central America proposed by a seminar in 1980, the time from 1,000 B.C. to A.D. 500 in the Costa Rican story would be Period IV. At about 500 B.C. the Guanacaste-Nicoya and some of the Central Highlands-Watershed region were influenced by Mesoamerican culture, with production of the same red-on-buff pottery and a tendency for all settlements to prefer level, fertile land suitable for agriculture. (Ref. 7)

SOUTH AMERICA

The complete disappearance of the Chavin society of Peru in this century was so sudden that a cataclysm is suggested. It may have resulted from a climatic crisis in that it is known that the sea level oscillated as much as 23 feet in this time period. Engel (Ref. 8) states that in the north central part of Peru there were two new societies after about 500 B.C., the Mochica and the Gallinazo, both in an area no more than about 240 miles long. South of there from the Huarmey Valley to the Lurin, south of Lima, with an area of almost 1,200 square miles there appears an archeological gap of about 1,000 years.

Still farther south the Paracas Society appeared at the end of the Chavin time or after a short gap and the very far south has not really been studied.

The exact time of origin of the Mochican society is disputed and even radio-carbon dates are somewhat confusing. Engel feels that it existed from this 5th century B.C. until at least A.D. 100 and was contemporary with the Gallinazos with whom the Mochicans fought. The chief phenonemon of Mochica is a classical pottery, handsome, of various shapes, decorated and some of it pink-fired. On some pottery the paintings show circumcised prisoners shackled together, but none of the Mochicas are shown nude. Since circumcision was essentially unknown in early South America, from whence did the prisoners come?

Ceramic portrait paintings of many classes of men are found, including warriors, farmers, priests, etc.. The warriors may have arrived later, representing a new, conquering group. Some of the Mochican sites contained metal objects but the sites had been looted long before any professional archeologists arrived. (Please also see South America in the 2nd century B.C. for Barry Fell's thoughts).

In nearby Viru Valley lived the Gallinazo, named after a vulture, with a great building society superimposed on an age old strata of previous peoples. One ziggurat, 82 feet high, obviously had religious significance. Most sites have been looted centuries ago, as they contained gold objects, and finally the valley seems to have been conquered anyway by the Mochicans.

On a treeless, barren plain 12,500 feet above sea level in central Peru, there existed perhaps at this time, the Tiahuanaco civilization³, similar in every way to the Olmec except in the drastic differences in climate and geology. The similarities of this society at Lake Titicaca and the Olmecs with the Old World cultures are many, including a domesticated, small dog, with no wild progenitor in America, the use of hybrid long staple cotton and many other botanical features. Building materials were treated differently than in any other part of the Andes, with monolithic blocks weighing a hundred tons cut with geometric precision. The blocks show mortised joints and recesses in which metal hinges could have been placed to swing monumental doors. Multiple temples were built and at least one building 500 feet in length was included.

Book Co., 1976).

2

[195] SMITH, GARY AND LONG, MICHAEL E., "Utah's Rock Art: Wilderness Louvre", National Geographic 157: 971, Jan. 1980.

3

[65] FELL, BARRY, America B.C. (Quadrangle - The New York Times Book Co., 1976).

4

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[263] HAMMOND, NORMAN, "Unearthing the Oldest Known Maya", National Geographic 162: 126- 140, July 1982.

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[263] HAMMOND, NORMAN, "Unearthing the Oldest Known Maya", National Geographic 162: 126- 140, July 1982.

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[265] SNARSKIS, MICHAEL J., "The Pre-Columbian Art of Costa Rica", Archaeology Vol. 35, No 1: 54-581, Jan./Feb. 1982.

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[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

1. See this same section in the 10th century C.E.
2. Recent excavations indicate a Maya presence at Cuello, Belize at 2,400 B.C. (Ref. 6)
3. It has been very difficult for archeologists to accurately date the Tiahuanaco Society for many reasons. Most of the great areas have been looted extensively over the centuries and at present all excavation is restricted by the Bolivian government. Engel (Ref. 9) has obtained a carbon-dating of the deepest strata of the city proper of about 2,000 years ago, but pottery fragments at that level already were decorated in high classical Tiahuanaco style, suggesting that this was late in the history of the people. We are empirically starting the discussion of Tiahuanaco in this century although it may have originated either earlier or later by several hundred years.

America: 400 to 301 B.C.

AMERICA

NORTH AMERICA

The Dorset Arctic, the Adena variety of the Woodlands and the southwest Cochise traditions continued as described in the preceding two chapters.

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

In the Central American tropical forests of Guatemala and Honduras the Mayan Culture continued to develop with an increasing complexity indicated by the construction of mound platforms for temples and palaces. Recent excavations at Cuello, a ceremonial center of northern Belize which may have had its origins as far back as 2,400 B.C., have revealed evidence of what was probably a barbaric religious ritual of about 400 B.C. Twenty skeletons were found, some complete but others with detached skulls lying beside lopped-off limbs. These were lying in the center of a massive, raised platform some 200 feet square and standing 12 feet high. (Ref. 1) Another city on the Mayan trade route along the eastern coast of the Yucatan peninsula in modern Belize was Cerros. This community has been remarkable well preserved although it was abandoned many centuries ago. For three hundred years, beginning in about 350 B.C. it existed as a modest fishing and trading village. In the beginning the inhabitants lived on or close to the current ground level or on low clay platforms. In later centuries marked changes occurred in the manner of living and we shall refer to these in subsequent chapters. (Ref. 2) The mound platforms of the early Central American people initiated the building of pyramids which was a virtual obsession for the next 2,000 years. Mexico alone may

have some 100,000 as not uncovered. (Ref. [3](#), [4](#))

SOUTH AMERICA

The people of northern Peru were melting gold and copper by 300 B.C. Since the melting point of these metals is a little more than 2,200 degrees Fahrenheit, one wonders how they reached such temperatures. The later chroniclers of the Spanish say the Indians blew on the fire and installed their hearths on hilltops where they had the help of the wind.

Fine Columbian metallurgy (using the lost wax method) was to later far surpass in quality that of either Peru or Mexico. (Ref. [5](#))

The highlight of the Paracas Culture in southern Peru was embroidery. "As in the earlier Chavin Culture, the stylized feline animal played an important part in the decoration of their pottery as well as their textiles."¹ Hybrid birds, beasts, fish, snakes and men also moved up and down the fabrics in rows, as cotton and alpaca wool were fabricated into mantles and other fabrics, with as many as 190 different shades of colors. Many of their ceramic vessels were characteristic Chavin steep-mouthed jars. Mummies from major necropolises on the Paracas peninsula, carbon-14 dated to about 300 B.C., have been found near large quantities of hardwood guara, a type of centerboard used in the navigation of sail-carrying rafts, attesting to extensive maritime activity. The physical attributes of mummy bodies differed markedly from those of known South American Indians; the mummies being for one thing much taller and having different skull shapes.

All studies of Tiahuanaco skulls have also shown a mixture of skull shapes, with the cranial indices varying from 71.97 to 93.79 and hair color and shape varying also. Interesting features of the tremendous Tiahuanaco statues are the deep-set eyes and straight noses, quite different from the round Chavin eyes and the deer-shaped ones at Mochica. Most statues call to mind the ones on Easter Island in the south Pacific. (Ref. [6](#), [7](#)) At one point Tiahuanaco reproduced an art theme typical of the old Chavin style with serpent-like animals protruding from the bodies of armed figures with animal heads, sometimes feline and sometimes that of an eagle. A hot-land item, the feathered shield, has also been found in the Jojo Province of the eastern shore of Lake Titicaca and the greatest number of Tiahuanaco stones has also been found in this

area. Some archeologists have described three phases of pottery decoration in that society. (Ref. [8](#), [9](#), [10](#))

Regarding the eastern side of the South American continent, we might mention that Barry Fell (Ref. [11](#)) writes that he has translated rock inscriptions written in the ancient Ogam Celtic alphabet in caves near the upper reaches of the Paraguay River, these dating probably between 500 and 500 B.C. The writing allegedly describes a visit by mariners from Cadiz, Spain and the language supposedly was a variant of Phoenician called "Iberian". Others have described a stone found on a Brazilian plantation with alleged Phoenician writing².

[1](#)

[263] HAMMOND, NORMAN, "Unearthing the Oldest Known Maya", National Geographic 162: 126- 140, July 1982.

[2](#)

[264] FREIDEL, DAVID; ROBERTSON, ROBIN; AND CLIFF, MAYNARD B., "The Maya City of Cerros", Archaeology Vol. 355, No. 4: 12-211, July/Aug. 1982.

[3](#)

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

[4](#)

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

[5](#)

[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

[6](#)

[3] ALLISON, MARVIN J., "Studies of Pre-Columbian American Diseases 1971-1976, National Geographic Research Reports. Vol. 12, 1971 Projects, pp. 1-11 (National Geographic Society, Washington D.C., 1980).

[7](#)

[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

[8](#)

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

[9](#)

[62] ENGEL, FREDERIC ANDRE, *An Ancient World Preserved*. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[10] BELCHER, TAYLOR AND EDIE, "Great Golden Art of the Ancient Peruvian Artisans", *Smithsonian* 8:841, Dec. 1977.

11

[122] LEWINSOHN, RICHARD, *Animals, Men and Myths*. (Translated from German). (Harper & Brothers, New York 1954).

1. Quotation from Taylor and Belcher, Ref. 10, page 85.
2. This interpretation has been backed by Ladislau Netto, Director of the National Museum in Rio as well as by Cyrus Gordon of Brandeis University in Massachusetts, but is scoffed at by European scholars.

America: 300 to 201 B.C.

AMERICA

NORTH AMERICA

In the far north the Dorset phase of the Arctic Small Tool tradition continued. This Dorset Society was to last overall, some sixteen centuries. (Ref. 1)

By this century, for reasons unknown, the Adena Culture had faded and almost disappeared, but a new North American Indian culture made its appearance in Illinois and soon spread to Ohio. Named the "Hopewell" after an Illinois mound group, this eventually spread widely over a huge portion of the eastern United States, stretching from the Mississippi River to Florida. Although the people probably cultivated corn and other crops, hunting and gathering were still of critical importance. They built elaborate earthworks, some for defensive purposes and some as burial mounds. They worked in copper, mica, obsidian, soap-stone and wood as well as clay. Copper and mica cutouts in various designs were seen in effigy pipes and occasional pottery. Rock carvings of satyr masks almost identical with some of Carthaginian occupied Sardinia and Carthaginian coins of the 4th and 3rd centuries B.C. have allegedly been found along the Arkansas River both above and below Wichita, Kansas, according to Barry Fell, and he feels positive that the Carthaginians traded on the Atlantic side of America for lumber, gold and furs. (Ref. 2, 3)

In the southwest, in southern New Mexico and eastern Arizona, Coshise Indians continued their agricultural, hunting and gathering society, but with still more improvement in the type of corn, squash and beans, so that a true farming community had materialized.

MEXICO AND CENTRAL AMERICA

As the Mayan Society began to flourish we must not fail to remember that the Olmecs left a heritage of religious beliefs, artistic symbolism and other cultural traditions to all subsequent Mexican people. Recent excavations near Coba, Mexico, on the Yucatan peninsula have been called the Late Pre-classic Maya period by Mexican archeologists, with a dating going back to 300 B.C. and with a peak at A.D. 200. The Mayas excelled in astronomy and developed a very complex system of chronology (perhaps originating with the Olmecs) which was remarkably exact in its calculation. For example, they calculated that 405 full moons occurred in a period of 11,900 days, while today astronomers make it 11,959,888 days, thus differing by 1 day every 292 years or less than five minutes a year! They recorded their language in a complex hieroglyphic script composed partly of ideograms representing whole words or ideas and partly of phonetic symbols for sounds, much as did ancient Egyptian and modern Japanese. Scholars are still working on decoding this language, which is still spoken by some two million people. (Ref. 4)

In Costa Rica this Middle to Late Period IV can be viewed as a time of contact with more developed Mesoamerican cultures. Superb human and zoomorphic ceramic effigies were produced at this time. In the Central Highlands-Atlantic Watershed, household remains also resemble Mesoamerican patterns; small, rectangular houses are sometimes accompanied by bell-shaped storage pits. The pottery was adorned with any number of tropical reptiles with the color chiefly red on buff. (Ref. 5) The archeological record of western Panama begins at about 300 B.C. and includes ceramics found in the Rio Chiriqui rockshelters. They were similar to those described in Costa Rica. We shall note in later chapters that this was an area where big chiefdoms developed. (Ref. 6)

SOUTH AMERICA

There were apparently any number of small, localized although prosperous societies in various parts of the Ecuador, Peru, Bolivia complex in this century. About this time a numerous tribe arrived in the Chilca Basin just south of present day Lima, building clusters of dwelling houses made of conical, hand molded clay blocks, a

temple and store-house-fortress. Their temple resembled a Polynesian "marae", and large and impressive adobe pyramids were constructed. There were perhaps 2,500 people to a village, living on corn, sea-food and potatoes of cultivated species, the first in Peru. Seven Lapa Lapa¹ systems with some 10,000 structures made of heavy stone have been mapped out. They had some traits in common with the Nazcas who lived farther south and were their contemporaries - such things as pipes with ten holes, triangular obsidian projectile points and certain types of dishes. (Ref. 7, 8)

The Paracas ceremonial center on the south coast of Peru faded at about 200 B.C. although there appears some confusion about dates in regard to the Paracas-Nazca time periods. Fell (Ref. 10) reports carbon dating of the Paracas in the middle south Peru area back about the 5th century B.C., while Engel (Ref. 11) makes it much later, although he agrees that what he calls "Paracas I" was gone before 200 B.C.² This territory was originally part of the Chavin society area and some Chavin decorations were continued. There now appeared a recently identified Vicus Culture which existed at the bend of the Marañon River almost on the present Ecuador-Peru border. This appears to have begun about 220 B.C. and lasted for approximately five hundred years. From the artistic standpoint these people are identified by intricate sheet-gold figures. Nose and ear ornaments employing both gold and silver were developed there and carried on even into much later Inca days. (Ref. 12, 13)

The high culture Tiahuanaco made small microlithic projectile points of obsidian, quartz or flint, and bolas used for catching camelids were typical of the area. Some Tiahuanacoid pottery of the era shows an eye on figures that became Nazcoid or almond shaped, suggesting a hybridization of these two cultures. The jewels of Tiahuanaco were very fine and when faces were carved the noses were aquiline rather than straight, as shown on the winged god of the famed Gateway of the Sun, and as found on the gods of Easter Island. (Ref. 15)

At Chiripa, on the shores of Lake Titicaca there are interesting excavated architectural styles dating to about 300 B.C., where the walls were built with unfired clay bricks painted red, green and white, resting on a pebble base. All walls were double with the space between apparently used for storage bins and some as stables for guinea pigs. The roofs must have been of straw. The attached graves showed malachite beads and hammered, thin sheets of gold.

The pottery had a stylized decoration using Greek-like step patterns and other geometric forms.

1

[189] SCHLEDERMANN, PETER, "Eskimo and Viking Finds in the High Arctic", National Geographic 159: 575-602, May 1981.

2

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

3

[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[265] SNARSKIS, MICHAEL J., "The Pre-Columbian Art of Costa Rica", Archaeology Vol. 35, No 1: 54-581, Jan./Feb. 1982.

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[266] DE SAPIR, OLGA LINARES AND RANERE, ANTHONY J., "Human Adaptation to the Tropical Forests of Western Panama", Archaeology 24: 346-355, Oct. 1971.

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[255] ARCHEOLOGY OF SOUTH AMERICA, Cartographic Division, National Geographic Society, March 1982.

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[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[124] LOW, D.M. (Editor). Abridgement of The Decline and Fall of the

Roman Empire, by EDWARD GIBBON. (Harcourt, Brace & Co., New York 1960).

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[255] ARCHEOLOGY OF SOUTH AMERICA, Cartographic Division, National Geographic Society, March 1982.

15

[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

1. A term Engel (Ref. 9) uses for the Chilca Basin dwellers.
2. In 1982 the National Geographic Society (Ref. 14) dated the Paracas Period as 550 to 200 B.C.

America: 200 to 101 B.C.

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

There was no interruption of the Dorset Society previously described in the Arctic north. In southeastern Canada, particularly in the region of Nova Scotia, the Micmac Indians eventually had script writing. Although usually credited to work of later French priests, Fell (Ref. [1](#), [2](#)) gives some evidence indicating an east Libyan origin from near the Egyptian border where Herodotus said that an Adrymachid tribe had adopted Egyptian manners. He dates the contact of Libyan sailors with the Micmacs to this century but only further investigation can really settle this one way or another.

We have recorded previously that some authorities feel that Asian migrations to North America via a Pacific northern route continued by boat down to about 2,000 B.C. If true, then over the vast expanse of some 20,000 to 30,000 years a great variety of people could have made this trek. We know for certain that the Aleuts and the Eskimos are separate from true Amerindians and that the Athabascans of central, north Canada were relatively late comers, different in culture and language from most other Indians. Now we shall describe still another group of people, occupying the far western shore and the off-shore islands of Canada, who appear to be different from all other early North American inhabitants in many ways and who developed in an isolated situation along the Canadian waterways, shut off from inland Canada by precipices and wild mountains. These are the Haida of the Queen Charlotte Islands and the Kwakiutl of northwestern Vancouver Island, both ranking among the tallest people in the world. They appear to be related to

the Salish or Flathead Indians who later inhabited northern Montana, apparently coming down gradually from Bella Coola and British Columbia. These people are dolichocephalic while most American Indians are brachycephalic; their complexions are fair and their hair of ten soft and brown, rather than Mongolian coarse and black. The earliest European visitors to the western Canadian islands - Cook, Dixon and Vancouver - all emphasized those features. In addition those northwest coast people of ten had strong mustaches and beards, in contrast to the usually totally beardless Amerindians. Thus they have many Caucasian features and are physically identical to true Polynesians. Their homesites in the Canadian islands probably represent way-stations on the trip these people made from some place in Asia in ancient times to the eventual destination of some of them, in Polynesia. If they are related to Malaysians it is a very distant relationship and the two physically dissimilar peoples must have separated from an original stem in very ancient days, before the Malayasians even migrated down into the peninsula now bearing their name. The theme of the unity of the northwest American Indians and the Polynesians will be further developed in subsequent chapters.

THE UNITED STATES

The expanding Hopewell sphere extended from the Alleghenies to the western border of the Mississippi valley, north to the Great Lakes, south to Florida and the Gulf States. Their craftsmen obtained obsidian for knives and arrowheads from the Yellowstone area of Wyoming as well as other rocks from Montana and North Dakota. We have not emphasized it previously but the Woodland Culture with its burial mounds, pipes, stone and copper gorgets, wooden carvings, pottery effigies and earrings existed in the south as early as 1,000 B.C. onto this 2nd century B.C. and beyond. Burial mounds up to forty feet in height are scattered throughout the south. (Ref. 3)

We do not like to belabor a controversial point but is perhaps worth mentioning that Fell (Ref. 4) insists that Celt-Iberians were scattered throughout the eastern United States by this period and that coins found in quantity in Ohio were local copies of ancient bronze coins of Evia, an old Portuguese city. This entire question of European and/or North African visitors in America at a much earlier time than heretofore ever mentioned in classical histories is

an interesting one. Although Fell and Thor Heyerdahl¹, both of whom have written extensively on this subject independently, have not obtained any significant agreement from others in the field, this does not necessarily mean that they are in error. We must remember that in the latter part of the 19th century the initial reports on the extensive and now famous prehistoric cave paintings and engravings from parts of Spain and Les Eyzies region of France were met with complete skepticism by the International Congress of Prehistoric Archeology and Anthropology. (Ref. 5, 6, 7)

In the southwestern United States where the corners of Arizona, New Mexico, Utah and Colorado join, the so-called Basket-maker I period of the Anasazi Indian Culture was in progress but few details are available from this century. Farther south the San Pedro Culture, apparently a modification of the Cochise, continued to be viable. (Ref. 8)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

In Mexico the Teotihuacan city-state continued to grow. The late Pre-Classic period of Central America continued with progressive population growth. The Maya in the Peten area subsisted on corn, beans and squash, as they cleared land by a slash and burn system. There were no large ceremonial centers as yet.

SOUTH AMERICA

The Vicus Culture flourished in northern Peru. At Lake Titicaca, on the border of present day Peru and Bolivia, on a bleak 13,000 feet plateau in the middle of the previously described Tiahuanaco Culture area there now was built about 200 B.C. the definitive city of Tiahuanaco. Its remaining stones give evidence of a colossal style of building, with formidable mathematically ordered walls and imposing massive stone steps. A giant stone idol, 24 feet high, was excavated in 1932 by an American archeological team under W.C. Bennett. Another idol, only 8 feet tall but of a completely different style, although also of red sandstone, was found beside it. Shrunken human heads have been found, suggesting the bloody cult of head-hunting and/or human sacrifices. A Bolivian scholar, Ponce Sangines, believes this culture lasted from 200 B.C. to A.D. 1,200 with perhaps five buried cities, one often overlapping another in the

archeological strata. Lake Titicaca is the highest navigable lake in the world and its largest island, the Island of the Sun, has hills with ancient crop-growing terraces and beneath its waters are high walls and paved paths. The lake, covering 3,200 square miles now is thought to have once reached the walls of the ancient city of Tiahuanaco, the ruins of which now lie 25 miles away in Bolivia. The city may have been basically a religious or meeting center, as the large public buildings could hold thousands of people. There seems to have also been suburbs where craftsmen, weavers, smiths and farmers lived in mud-brick houses. Potatoes and corn were grown as they are even today. The stones which made up the large public buildings and walls appear to have been brought from quarries between 60 and 200 miles away and the method of transport brings up the same questions and possible answers that have been issued about the great stones of Stonehenge, the European megaliths and the statues of Easter Island. Some American prehistorians have suggested that the Tiahuanaco people simply fused together all the upper Andes societies that had been fragmented since the end of the Chavin Culture.

Heyerdahl (Ref. 9) quotes many of the very earliest Spanish chroniclers as they have recorded the natives' legends of the great pre-Inca past. In these there is the recurring theme suggesting immigrants from across the ocean. Lake Titicaca is given as a possible beginning point for Inga Viracocha or the composite Con-Tici-Viracocha, a bearded deity who "brought his people from the sea." Legends among the Chimú have this same deity arriving by sea along the coast much farther north. One of the statues unearthed by W.C. Bennett in 1932 was that of Con-Tica-Viracocha in Tiahuanaco, complete with beard and long girdled robe, decorated with an horned serpent and two pumas, symbols of the Supreme God in both Mexico and Peru.

At about this same time of 200 B.C.² and running to about A.D. 900 there appeared in the north of Peru the mysterious Mochica Culture complete with pottery and clay figurines and musical instruments and clothing resembling that of classical times in the Mediterranean. The Moche have sometimes been called "the Greeks of South America." Fell believes that they derived from a Libyan colony which was originally in the southwest United States because of similarity of some dragon-ship art work and other features found in ancient Nevada and California desert sites. He believes extensions

of Maui's voyages (Please see The Pacific: 300 to 201 B.C.) included the southwestern United States and that visitors from there to northern Peru account for the civilization of the Moche.

Meanwhile on the middle south coast the society which Engel (Ref. 11) calls Paracas II developed as a coastal society with limited architecture, some use of copper and gold and a very advanced state of weaving. All skulls were deformed to a pear-shape and many were trepanned. Some elements suggest that they came up the coast from Chile and their many identified weapons indicate terrific battles. The Nazcas were direct successors of the Paracas and they too remained a coastal tribe, although with a far different social system. The transition was apparently somewhat gradual and although the Nazca Society may have taken shape in this century, it did not blossom until long after. (Ref. 12, 13, 14, 15)

1

[65] FELL, BARRY, America B.C. (Quadrangle - The New York Times Book Co., 1976).

2

[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

3

[267] WRIGHT, J. LEITCH, JR., The Only Land they Knew. (The Free Press, New York, 1981).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

5

[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[130] MARSHACK, ALEXANDER, The Roots of Civilization. (McGraw-Hill Book Co., 1972).

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

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[62] ENGEL, FREDERIC ANDRE, *An Ancient World Preserved*. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[62] ENGEL, FREDERIC ANDRE, *An Ancient World Preserved*. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[176] READERS DIGEST, *The World's Last Mysteries*. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[66] FELL, BARRY, *Saga America*. (Times Books, New York, 1980).

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[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

15

[62] ENGEL, FREDERIC ANDRE, *An Ancient World Preserved*. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

1. Heyerdahl's theories apply only to Central and South America, not the United States.
2. Engel (Ref. 10) dates this earlier, between 500 and 400 B.C.

America: 100 B.C. to 0

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

All across northern Canada as far north as Ellesmere Island and northern Greenland and down to the northern shores of Hudson Bay and the east side of the Ungava Peninsula, the Dorset people continued to thrive. They carved figures of animals from walrus's tusks and bone, decorating them with peculiar outer marks which Schledermann (Ref. 189) has called an outline of animals' skeletons. In the pictures he shows, however, it hard to identify true skeletal structures and the marks are more reminiscent to this writer of the lunar notations of ancient Europeans described previously by Marchack. (Ref. 139) The northwest American Indians of the Canadian waterways continued in active existence at this time.

THE UNITED STATES

According to Barry Fell's original hypothesis North American trade from southern Europe ceased after the conquest of Brittany (55 B.C.) and the Battle of Actium (31 B.C.) because the Romans had no navy and needed none and the memory of America was lost¹. In his latest book of 1980, however, Fell (Ref. 66) revises this markedly, having allegedly recently been deluged with finding of European (Roman) coins and rock inscriptions in a great variety of places in North America. Rock engravings which he believes to be copies of multiple coins minted locally in Spain about 20 B.C. in imitation of Roman coins of the same era and bearing portraits of Caesar Augustus, have been found at Castle Gardens, Wyoming. Fell is convinced that this Wyoming site was actually an early bank and

center of trade with customers using Celtiberian Gaelic as their main language. He hypothesizes that people of Wyoming traded with Celtiberians and their Indian wives, after the latter had migrated across the continent from New England to British Columbia and then to northwest United States. West Arkansas and Oklahoma have also yielded coins which seem to fit into this same category. Lacking further confirmation, the reader may make his own interpretation.

In the central and eastern United States there was continued Hopewell expansion with a distinctive ritual and artistic tradition, probably indicating a loosely knit group of societies with common religious and artistic conventions. The Gulf states, too, were heavily inhabited probably as far back as this era. In southern Colorado the Anasazi people entered into what we have already labeled the Basket-maker period. Excavations at Durango show both cave and open village sites, with evidence of maize growing as well as hunting activities. Baskets were made of plant fibers loosely plaited, coiled or stitched and decorated in red and black. (Ref. 215, 45, 210)

The Mogollon Culture in southern New Mexico and eastern Arizona apparently developed from the Cochise Culture and was manifested by a sedentary life style utilizing a plain pottery and existing on maize along with the fruits of some gathering and hunting. The name "Mogollon" is one lately applied², and first given to a range of mountains running almost east-west across central Arizona and New Mexico, marking the southern edge of the northern high plateau country. South of this Mogollon ridge the terrain drops several thousand feet into the southern basin with meager rainfall and hot desert valleys with desert grasses, mesquite and cactus. In the middle of that basin there are north-south running mountain ranges going from New Mexico well down into Old Mexico. About 100 B.C. the Mogollon Indians have been identified as inhabiting this region. They continued to live in that large area for 1,500 years, constantly improving their crops and tools.

At about the same time another group of Indians, who may have been still another branch of the ancient Cochise, settled in the hot arid valleys of the lower Gila and Salt rivers. They have become known as the Hohokam³, surviving through their descendants, the Pima and the Papago. The Hohokam lived in Arizona for 1,200

years, building at Snaketown more than 5,000 houses at a rate of 400 a year. (Ref. 45, 210)

MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

The Olmec civilization seems to have faded out at this time and no clear cut explanation has ever been given. But in the Valley of Mexico the brilliant city-state of Teotihuacán began to blossom. Originally a settlement of moderate size surrounded by a number of similar settlements this was soon a full fledged city and not just a ceremonial center like many of those of the Olmecs. There were large scale irrigation works, cultivated tomatoes and peanuts as well as maize and other grains and the domesticated turkey. There is evidence of a far flung trade with other areas of Central America and perhaps the North American settlements. Farther south in Guatemala the Mayan people continued to expand, beginning what has been called the Classical Age and the peoples of Costa Rica and Panama lived about as described in previous chapters. (Ref. 215, 64)

Recent excavations at the ancient town of Cerros in modern Belize indicate that about 50 B.C. the Maya inhabitants undertook a massive urban renewal. This involved the construction of a massive urban complex with large open plazas, great pyramids and 103 public buildings and dwellings arranged in a careful plan with the entire center surrounded by a canal 1,200 meters in length. Apparently all this was undertaken because of the excellent trading position of Cerros on a Yucatan bay at the mouth of the New River. The largest pyramid had some 30,000 cubic meters of rubble fill, twice the size of a famous North Acropolis at Tikal and represents a considerable engineering feat. (Ref. 164)

SOUTH AMERICA

Multiple cultures continued in the area of Greater Peru. On the northern coast there continued to be the Vicus Society. Their pottery, featuring resistive (i.e. negative) painting, resembled the Gallinazo. In the middle south coast the polychrome pottery and embroidery fabrics of the Nazca developed about this time but actual dating is difficult because of the extensive looting of ancient dwelling sites that has taken place in the past. The Tiahuanaco

Society continued to thrive in the high Andes in the Lake Titacaco district. Contact between these highlanders and the Nazca and Huari peoples of the lower lands undoubtedly occurred with exchange of pottery dyes and other materials. The two areas are only 120 difficult miles apart. (Ref. 45, 62)

1. From *America B.C.* by Barry Fell (Ref. 65).
2. The name was taken from an 18th century Spanish official.
3. In the modern Pima language this means "those that have gone before".

America: 0 to 100 A.D.

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

In the very far north the Dorset Arctic tradition continued to thrive. (See particularly the 6th and 1st centuries, B.C.). Some further remarks about the Indians on the western coast and islands of Canada seem in order. Their houses were large and rectangular with walls and roofs made of hand split boards. The roofs were gabled and there were no windows. The short front walls had small doors, usually highly decorated, sometimes with carvings, sometimes with paint. There were plaited mats on the dirt floors and no furniture. Houses could be as long as 70 feet. Social classes included a ruling aristocracy, commoners and slaves. Being basically a sea people they built sea-going canoes, some 170 feet long, 61/2 feet wide and 41/2 feet deep, which could accommodate 100 people. They navigated the open seas easily and as we shall note in a later chapter, some of their voyages undoubtedly went to the Hawaiian Islands where the people became Polynesians. The currents and winds alone sometimes carry large logs from northern Vancouver Island directly to Hawaii. The canoes were made of one-half of a large tree trunk and carried only a mat which could be used as a poor sail. For sea voyages two canoes could be tied together and a platform put over both. One man steered with a paddle in the stern and kneeling pairs of men paddled strongly. Three types of fish-hooks were used, none of which have ever been seen in Indonesia or Southeast Asia. These northwest Indians did not have pottery.

THE UNITED STATES

This was the beginning of the maximum expansion of the Hopewell Culture with secondary areas of influence in the so-called Marksville group near the Mississippi delta and the Santa Rosa groups at the base of the Florida peninsula. Their rather elaborate decorations (usually for the dead) included copper from Lake Superior, mica from the Appalachians, obsidian from the Rocky Mountains, alligator teeth and conch shells from Florida and the Gulf and stone from Minnesota and Wisconsin. At the risk of over-emphasizing the rather bizarre hypotheses of Barry Fell, we shall mention that he writes that the builders of the Hopewell mounds were mainly Libyans, assisted by Negroid Nubian crew members who left sculptures of heads and African animals along the Mississippi River system in Ohio, Iowa, Oklahoma and Arkansas. He even suggest that Jewish refugees from the first Romano-Jewish war ended up in Kentucky and Tennessee.¹

In his most recent book Fell (Ref. [2](#)) gives a translation from Plutarch which allegedly tells of how Greek North Africans (Late Carthaginians) sailed westward from Britain passing three island groups equidistant from one another (Orkneys, Shetlands and Faeros?), and then to Ogygia (Iceland?) five sailing days away and then on to the northern coast of a continent, Epeiros, that rims the ocean. South Greenland would fit the alleged distance and direction. Then, says Plutarch,² if one sails south along the coast one will pass a frozen sea and come to a land where the Greeks settled and married with the native barbarians. (The Davis Strait between Labrador and Greenland becomes an impassable mass of floating ice during the summer season.) As for the place where the Greeks married, Plutarch says it was in the same latitude as the Caspian Sea, thus Nova Scotia and New England. It is in connection with this that Fell quotes Dr. Silas Rand³ who spent a lifetime in the last century among the Micmac and who wrote a *Dictionary of the Micmac Language*, as indicating a prevalence of Greek roots in their language. An illustrative list of over 50 such Greek roots are given by Fell along with the Micmac equivalents, implying a derivation from the Greek spoken in North Africa in Ptolemaic times, words that were a part of the everyday language of Libya and Egypt. This concept has been reported false by the Smithsonian institute.

Sometime during the Woodland Period maize had made its way from South America and/or Mexico to the southern United States and had spread from there even into New England and the Mid-

Atlantic states. Varieties of lint corn or popcorn appeared in the South. (Ref. 3).

In southern New Mexico and Chihuahua, Mexico the Mogollon people continued to live in their semi-subterranean pit-houses and appeared to have self governing villages under the leadership of civil and religious elders democratically selected. An important feature was a large ceremonial house known as the great kiva, three or four times the size of the usual dwellings. In southern Arizona and the neighboring Mexican state of Sonora the Hohokam people began extensive irrigation systems with dams on rivers and some canals 30 feet wide and 25 miles long. This society developed for over 1,000 years, but the exact date of its origin has long been debated, estimates varying from 300 B.C. to A.D. 500. (Please see the 5th century C.E.). At any rate, they made exquisite jewelry and pottery pyramids and used astronomy. This is another American culture which Barry Fell (Ref. 4) believes to be of Libyan origin carrying the tradition and navigational and astronomical knowledge of the Old World and which had arrived via Pacific travelers as manifested by the original maps made by the famous Maui. (See The Pacific: 300 to 201 B.C.). The frontispiece on Fell's latest book (Ref. 5) is a map supposedly drawn by Maui showing North America and the eastern Pacific, using the primary meridian as a line through Alexandria, Egypt (as used by Eratosthenes) with an international date line at 180 degrees, passing about 10 degrees east of Hawaii. It shows Hudson Bay and the isthmus of Panama and survives on rock drawings in Nevada. Fell says that additions to the original Libyan lettering have been made later in Kufic Arabic, showing that the map was still in use, probably for educational purposes as late as A.D. 750. It is his contention that petroglyphs and writings from Nevada and California, carefully recorded and filed at the University of California and other places, could not be previously interpreted because the nature of the writing (Arabic) was not recognized. The difficulty in all this is that current authorities including southwest museum directors and southwest anthropology professors in recent publications make no mention of these concepts whatsoever. (Ref. 6, 7, 8).

MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

People in the far north of Mexico participated in the Southwest American societies are related in the paragraphs immediately

above. Much farther south there was rapid growth in the Teotihuacan area and continued evidence of human sacrifice, common to all MesoAmerican societies. Skeletons wrapped in nets, ritually burned children's remains and buried heads all testify to this. (Ref. 9).

The Mayan civilization continued in Guatemala, Honduras and El Salvador. The Mayas counted in 20s and had a much more manipulative representation than the clumsy Roman numerals of the same time. The Maya zero, represented by a shell-shaped sign , was a concept which did not reach Europe from India for almost another 1,000 years. The numbers 1,2,3 and 4 were represented simply by the corresponding number of dots, while 5 was a single bar. Thus 5 was , 7 was , etc., while 10 was two bars. Eighteen in this system was  and 20, of course, was four bars, one under the other. For numbers higher than 20 a new row was started above the first, to mark the number of 20s in total. Thus the number 234 would be expressed by only two Mayan symbols 0 on top sign for 11 (meaning 11 sets of 20 or 220) and underneath the sign for 14, thus: 

In the last chapter we noted the May trading center of Cerros near the base of Yucatan. In this first century of the Christian era this city went into a steep decline. It is probable that with increasingly strong and well-managed overland trading routes the riversea networks decreased in importance. (Ref. 10).¹

¹

C. to A.D. 250), the city of Colha, Belize, was a center for craft specialists who mass produced such stone tools as adzes, axes, daggers and hoes, as well as special ceremonial items. These were apparently exported all over the Maya region. To date some 32 work-shops have been excavated. (Ref. 11).

Pre-civilization societies continued to build up in Costa Rica and Panama. Dozens of settlements each almost half a kilometer in length in Cerro Punta. Panama, suggest considerable population build-up in the valleys south of the Continental Divide in this era. The ceramics of this stage are similar in both Panama and Costa Rica. (Ref. 12, 13)

SOUTH AMERICA

The early Intermediat Period of Peruvian history continued with a developed Vicus Culture dominating the north. There is some evidence that the trephining of skulls, using knives of hard obsidian, was a common practice in Peru at this time, for whatever reason. On the aird plain between southern Peru and the Andean foothills the Nazca Indians lived, making featherd turbans and fine cotton cloaks embroidered in multi-colored wools. Many of these have been recovered in Nazca cemeteries. Engel (Ref. 14) says that at this period there was no evidence of maritime activity among these people and fishermen were still depicted on ceramics swimming in the water catching fish in nets. Recent examination of skeletons of this era show a number of ear-canal osteomas, probably secondary to this work in the water. Gradually there was a rejuvenation of the so-called classical Nazca art, after an initial period of decline. The Tiahuanaco society continued in the high Andes. (Ref. 15, 16, 17)

1

[267] WRIGHT, J. LEITCH, JR., The Only Land they Knew. (The Free Press, New York, 1981).

2

[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

3

[267] WRIGHT, J. LEITCH, JR., The Only Land they Knew. (The Free Press, New York, 1981).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[210] TAMARIN, ALFRED AND GLUBOK, SHIRLEY, Ancient Indians of the Southwest. (Doubleday & Co., Inc. Garden City, New York 1975).

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[269] McQUIRE, RANDALL AND SCHIFFER, MICHAEL B., "On the Threshold of Civilization: The Hohokam of Arizona", Archaeology Vol. 35, No. 5: 22-29, Sept./Oct. 1982.

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[273] ANAWALT, PATRICIA R. "Understanding Aztec Human

Sacrifice", *Archaeology* Vol. 35, No. 5: 38-45, Sept./Oct. 1982.

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[264] FREIDEL, DAVID; ROBERTSON, ROBIN; AND CLIFF, MAYNARD B., "The Maya City of Cerros", *Archaeology* Vol. 35, No. 4: 12-211, July/Aug. 1982.

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[304] HESTER, THOMAS R.; SHAFER, HARRY J., ET AL, "Colhas's Stone Tool Industry", *Archaeology* 36, No.6: 46-52, Nov./Dec. 1983.

12

[266] DE SAPIR, OLGA LINARES AND RANERE, ANTHONY J., "Human Adaptation to the Tropical Forests of Western Panama", *Archaeology* 24: 346-355, Oct. 1971.

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[265] SNARSKIS, MICHAEL J., "The Pre-Columbian Art of Costa Rica", *Archaeology* Vol. 35, No 1: 54-581, Jan./Feb. 1982.

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[62] ENGEL, FREDERIC ANDRE, *An Ancient World Preserved*. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[176] READERS DIGEST, *The World's Last Mysteries*. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[62] ENGEL, FREDERIC ANDRE, *An Ancient World Preserved*. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

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[3] ALLISON, MARVIN J., "Studies of Pre-Columbian American Diseases 1971-1976, *National Geographic Research Reports*. Vol. 12, 1971 Projects, pp. 1-11 (National Geographic Society, Washington D.C., 1980).

1. Such concepts are really not new. Early American colonists, particularly one James Adair, persistently held that one of the lost tribes of Israel had come to America and mixed with the southern Indians. Others thought that the Welsh Prince Madoc or even Phoenicians had early come to America. (Ref. 1)
2. The exact sources of the Plutarch material are not given by Fell. He says simply that Plutarch, writing in the 2nd century, allegedly got his material from old records in Carthage.
3. Similarly, we have no source reference concerning Dr. Rand.

America: A.D. 101 to 200

AMERICA

NORTH AMERICA

In the far north there was very little change from the previous centuries. (See particularly 6th and 1st centuries B.C.). About the central and eastern United States there is some disagreement. Brian Fagan, the Distinguished Professor of Anthropology at the University of California at Santa Barbara, writes that there was continued Hopewell expansion with increased cultural development even up until the 5th century C.E. (Ref. 1), but the *Encyclopedia of Archeology* (Ref. 2) states that there was a rapid decline of the Hopewell at about A.D. 200. We know that the southeastern United States was inhabited but we have available only very limited information at this early period. Fell (Ref. 3) describes finding of what he believes to be Hebrew shekels dating from the Second Revolt of A.D. 132 in various parts of Kentucky and a nearby district of Arkansas.

The Mogollon, Hohokam and Anasazi cultures continued to develop in the southwestern United States. (Please see adjacent modules). The Mogollon people learned to grind and polish small stone slabs to make useful articles such as paint palettes, dishes and stone smoking pipes for tobacco. Their spear points were used with a rude throwing stick called the atlatl, an ancient weapon of the Americas. (Ref. 4)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

The Teotihuacan people of Mexico increased their city size to an eight square mile area, in the center of which rose the truncated pyramid of the sun - 210 feet high and 750 feet square. It was as

large at the base as the great pyramid of Cheops in Egypt. At the height of its prosperity, which was sometime in these early Christian centuries, Teotihuacán had a population of 120,000 with an added network of villages surrounding the main city. Over 5,000 buildings have been examined in this area, including 400 workshops for making obsidian tools and weapons and some 300 potteries. Irrigation channels were dug for both city and farm water. This center was 30 miles northeast of present day Mexico City.

At Izapa on the Mexico-Guatemala border, there was a distinctive art style resembling the earlier Olmec Culture and it may represent a connecting link between that and the later classic Maya Culture which developed to the east. In approximately this same timeframe, El Tajin, located in the Veracruz area a few miles inland from Santa Louisa, emerged as a major Huastec administrative and religious center. The Huastecs were "cousins" of the Maya and El Tajin, as their major city, soon counted a population in the thousands, with hundreds of buildings, temples, palaces, ball-courts and countless individual dwellings.

On the classical dating scale the Mayan civilization was nearing its peak with many great scale cities in the forests, particularly in Peten and the region of the ceremonial center of Tikal. For the most part they were a peace-loving people who farmed, wove cotton and made paper from the fibers of the fig-tree¹. They developed a system of writing which was partly phonetic and believed now to have been inherited in great part from the Olmecs. On the new dating systems this peak period of the Mayas may have been about 250 years later. (Please see America: 300 to 201 B.C.) (Ref. [5](#), [6](#), [7](#), [8](#), [9](#))

It is interesting that the prominent British historian, Hugh Thomas (Ref. [10](#)), denies that the Maya had significant writing, apparently basing his comments on a single given reference in a 1978 *Scientific American* article. But his reference, in the "Science and the Citizen" department of the May, 1978 *Scientific American* (Ref. [11](#)) gives me an entirely different concept. Although admitting that much Maya writing had been destroyed by the invading Spanish conquistadors in the mid-16th century, the article lists several sources of remaining Mayan hieroglyphics. There are manuscripts painted on deerskin which are apparently in museums scattered across the world, as they are known as the Dresden, Madrid and Paris codexes;

then there are 64 hieroglyphs that were written down in 1566 for the Bishop of Merida by a surviving Maya scribe; and finally there is a long inscription found inside three structures at Palenque (dated 7th to 9th centuries C.E.), consisting of some 600 glyphs, the translation of which is still proceeding under anthropologists and epigraphers from Yale University. The part that has been translated describes twelve successive rulers of the past and details of a current 13th ruler with birth, pedigree, accession, military achievements, ritual acts, etc. of all. More inscriptions turn up every year, on pottery, monument stones, buildings, etc. The written language involved at least 600 individual glyphs which could stand alone or be used in combinations of two or more.

This was a major developmental period in Costa Rican history with a dramatic increase in sites and population along with a trend toward social stratification. Many new artifacts appeared including elaborately sculpted metates of volcanic stone, ceremonial stone mace-heads, carved jade, figurines, ocarinas, whistles, stamps and rattles. Panama developed similarly and there were undoubtedly long distance Mesoamerican trade networks. (Ref. 12)

SOUTH AMERICA

Sometime in this or the next century Paracas in the middle of south Peru was abandoned, perhaps because of a severe tidal wave or other natural disaster. Some Nazca villages, however, survived for several additional centuries and the Tiahuanaco Culture of the high Andes remained untouched. The potato was used as decoration on Peruvian pottery as early as the end of this century. (Ref. 13)

1

[215] THORDNDIKE, JOSEPH J., JR., (Editor). *Mysteries of the Past*. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

2

[45] DANIEL, GLYN (Consulting Editor), *Encyclopedia of Archeology*. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[66] FELL, BARRY, *Saga America*. (Times Books, New York, 1980).

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[210] TAMARIN, ALFRED AND GLUBOK, SHIRLEY, *Ancient Indians of*

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[146] MILTON, RENE, "Teotihuacán", Scientific American, June 1967, page 38.

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

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[236] WILKERSON, JEFFREY K. "Man's Eighty Centuries in Veracruz", National Geographic 158: 202, Aug. 1980.

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[193] SCIENTIFIC AMERICAN, "Science and the Citizen" section, 238: 92-96, May 1978.

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[265] SNARSKIS, MICHAEL J., "The Pre-Columbian Art of Costa Rica", Archaeology Vol. 35, No 1: 54-581, Jan./Feb. 1982.

13

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

1. In contrast there was no paper in Europe at this time. China invented a paper but kept it secret for centuries. See The Far East: A.D. 101 to 200.

America: A.D. 201 to 300

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

For information concerning the Dorset Inuits of the far north, please see the 6th and 1st centuries B.C. and the 9th century C.E. For the northwest coastal Indians see the previous two or three centuries under this same category. Barry Fell (Ref. [1](#)) insists that throughout the last pre-Christian and these early Christian centuries the New England Celts, which he has described, gradually migrated with their Indian wives and children across Canada westward eventually reaching British Columbia. He reports that much of the vocabulary and grammar of the Takhelne language of the Fraser Lakes area spoken yet today, is a Creole Celtic tongue related to Gaelic and derived from Godelic. In America (Ref. [2](#)) he lists 54 words still used today by the Takhelne people along with the Godelic and Gaelic words and their much different English equivalents¹. The table is quite convincing, but why is this not even commented on elsewhere in the literature?

THE UNITED STATES

Sometime in these early Christian centuries the "Effigy Mound" Culture developed in the upper Mississippi Valley as a regional variation of the Hopewell Culture. There the Indians built gigantic mounds in the form of animals - panthers, lizards, deer, bears and birds. Most of the mounds had burials, often at critical parts of the figure such as at the heart, hip or knee. Although probably of religious significance, no one really knows what these Minnesota and Wisconsin mounds actually mean. (Ref. [3](#)) The southeast

Indians will be discussed at much length in later chapters.

In the southwest the Mogollon, Hohokam and Anasazi peoples continued their development. A more detailed look at their cultures will be given in later centuries, corresponding to the time of the heights of their development.

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

We have mentioned previously (3rd century B.C.) that recent excavations near Coba on the Yucatan peninsula have revealed much of the Late Pre-Classic Maya period. The peak of this civilization appears to have been reached in this 3rd century C.E. and the findings have included the Nohomul pyramid, rising 157 feet out of the jungle, 5.4 square miles of temple buildings, streets and plazas, 187 miles of roads and streets, some 80 feet wide with traffic circles and underpasses². This development apparently **followed** the Guatemala Maya Society, although it is known that by A.D. 250 there was a true urban Mayan zone persisting at Kaminaljuyu at the site of present day Guatemala City. This was the beginning of the greatest era of Maya civilization, with one of the earliest large, ceremonial centers at Tikal, dating to A.D. 292, in what is called the early Classic period. There was a strong central Mexican (Teotihuacán) presence, as that city was continuing development with obsidian mining as a major enterprise. (Ref. [4](#), [5](#)) The Mayas, even for generations after their peak, spoke of two distinct culture heroes, Itzamna and Kukulcan, both bearded, although arriving at different times and from opposite directions, leading the Mayas to Yucatan. Their legends said that the largest and most ancient immigration was from the east through the ocean and led by Itzamna, guide, instructor and civilizer. Kukulcan, a later arrival, was different - arriving with 20 men wearing flowing robes and sandals, with long beards and bare heads, ordering the people to confess and fast³. He allegedly founded Mayapan and caused much building at Chichen Itza, and taught "peace". His humanitarian teachings coincide completely with those of Quetzalcoatl, of the later Aztecs. "Kukul" is the Maya word for quetzal bird and "can" is a serpent.

A colored painting from an interior chamber of a pyramid at Chichen Itza, copied by Morris, Charlott and Morris in 1931 (and now destroyed by humidity and tourists) showed a seashore battle

involving two racial types, one with white skin and long, flowing yellow hair arriving in boats, and the other type dark-skinned and wearing feathered headdresses and loin cloths. A reed vessel on the pyramid painting recalls the reed boats used at Luxor in Morocco and the old Egyptian paintings of reed boats of the Nile. Where did these blond men come from? We do know from written accounts of the discovery of the Canary Islands by Europeans a few generations before Columbus, that those islands were inhabited by a mixed population called "guanches" - some small, swarthy and negroid, others tall, white-skinned, blond and bearded, all just like the Maya pyramid at Yucatan. The Berbers of North Africa were similarly mixed and remain so today. Blond and red-haired people are known to have been in the Caucasian plains east of Asia Minor and nowhere on the continent is red hair more common than in Lebanon. (Ref. 7) So, do we take our pick? As further confirmation of the presence of bearded men in this Central American area, we have Stephens (Ref. 8) account of his exploration of Copan, Honduras, in the 1830s. He describes finding multiple idols with the males all identified by beards and some with mustaches. The beards were like those on Egyptian statues but the latter did not have mustaches. One of the flat-topped altars described had ornaments suggesting the trunks of elephants! All of the monuments at Copan had sculptures and hieroglyphics.

SOUTH AMERICA

In southern Peru the remaining Nazca Indians made fanciful birds and animals of gold metal sheets and decorated their pottery with animals, demons and geometric forms in multiple colors. Their textile work was also intricate and colorful. We assume that the Tiahuanaco people continued to live in the high country although no particular datings from this century have been recorded. A crock of coins of all the Roman emperors of the first three centuries after Christ have been found buried on the coast of Venezuela. No one knows the source of these coins. (Ref. 9,10) As this is being written a newspaper item reports the finding of hundreds of pieces of Roman amphorae at the bottom of a Brazilian bay. The underwater archeologist responsible anticipates finding a sunken Roman ship, soon, and the amphorae will be dated with some accuracy by the pottery luminescence method in the near future, but he is confident

that the date will be the 2nd or 3rd century C.E.

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

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[203] STEPHENS, JOHN L., Incidents of Travel in Central America, Chiapas and Yucatan. (Dover Publ., Inc., New York, 1969 - Republication of original published in 1841 by Harper and Brothers).

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

1. Ref. 66, page 198.
2. One of the strange features of all early Central American societies is the fact that none of them used the wheel. Children's toy carts with wheels have been found, but no wheels were used otherwise. One explanation has been that the jungles and mountains made wheels useless, and yet why were they not used in cities with miles and miles of roads as just described?
3. This legend from *Las Casas' Historia de las Indias* of 1559, as related by Heyerdahl (Ref. 6), pages 113 and 114.

America: A.D. 301 to 400

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

Please see previous chapters, particularly the 6th, 4th and 1st centuries B.C. and the 3rd century C.E., as well as The Pacific: A.D. 301 to 400.

THE UNITED STATES

It is apparent that Indian people inhabited most of the American continent throughout all these early Christian centuries. Most American chiefdoms were agricultural (Hopewell, Mogollon, Hohokam and Anasazi) but along the northwest coast there were unusually rich fishing grounds with whales and seals which supported large villages and a complex ceremonial life. In the southwest it was near the end of the Early Basket Maker period of the Anasazi. In their excavated graves, along with the baskets have been found skeletal remains of these ancient people, buried dressed in string aprons and loin cloths made of hair, furs and feathers. No clay vessels or fired pottery have been found. (Ref. [1](#), [2](#))

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

At this time, the beginning of the Classic Period in Middle America, Teotihuacán had become the largest of the ancient Mexican empires, extending from the Valley of Mexico to Guatemala. In addition a new empire of the Mayas appeared in Yucatan, with paved roads extending throughout the realm. Although the city was ancient, there were now probably 1,000 people living around Cuella, in northern Belize. A twelve foot high platform, spread over

more than an acre, has been dated to this 4th century in that place. Increasingly taller pyramids elevated temples as high as 30 feet above the ground. Norman Hammond (Ref. 3) who has recently excavated many archaeological layers at Cuellar, says that he has demonstrated an independent Maya cultural tradition there at least 4,000 years old, and he believes that this area was the mainspring of Maya civilization - not highland Mexico or highland Central America, as some have claimed. The entire Mayan Culture was marked by a distinctive art style, the use of the corbelled vault and advanced mathematical concepts, including the use of zero, a complex calendar and the New World's most advanced writing system. (See also **America: 300 to 201 B.C., America: 0 to A.D. 100** and **America: A.D. 101 to 200**). Mayan astronomers calculated the exact length of the solar year, the lunar month, the revolution of planet Venus and were able to predict eclipses. For the latter they used monuments similar in function to Stonehenge in England. Their sister civilization in Peten also continued on a high level and the skilled Huastec builders of El Tajun at Veracruz diverted fresh-water canals to fertile terraces between tidal rivers and brackish estuaries. This civilization flourished for 800 to 900 years. (Ref. 4, 5, 6)

SOUTH AMERICA

More information about the interesting Moche Culture of Peru is warranted at this time, even though they may have lived at a much earlier period, and the accomplishments we shall mention now may be confused with the later Chan Chan Society. A history of their race and customs seems to have been left in their ceramic art. Portrait ceramics show the round face, high cheekbones and hooked nose, with flaring nostrils. The figures frequently depict vivid movement. Their landscapes had unusual detail and their goldwork emphasized mosaics of turquoise encrusted on gold. Using silver and copper in smelting techniques, they had the "lost-wax" method of casting and their own forms of welding, soldering, hammering, gilding and repousse. Although their origin and date of appearance is highly debated, the society apparently existed for about 1,000 years.

In the high country of the Peruvian-Bolivian border, the Tiahuanaco civilization persisted. In the south the Nazcas may have had a close relationship with the Paracas, and a place known as

Necropolis may have been used as a cemetery for chiefs and priests of both tribes. More than four hundred mummies, all wrapped in shrouds and elaborate cloaks have been found there in a building under the sands. Some of the embroidery designs show strange, masked people who appear to be descending from above with the help of many ribbons, the significance of which remains unknown. (Ref. 7, 8)

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[210] TAMARIN, ALFRED AND GLUBOK, SHIRLEY, Ancient Indians of the Southwest. (Doubleday & Co., Inc. Garden City, New York 1975).

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[263] HAMMOND, NORMAN, "Unearthing the Oldest Known Maya", National Geographic 162: 126- 140, July 1982.

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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America: A.D. 401 to 500

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

Please see **6th and 1st centuries B.C.** and **1st, 3rd and 9th centuries C.E.** regarding Arctic Cultures. At Ungava Bay, 750 miles north of Quebec City, there are rock walls dating to A.D. 500. Eskimo legend says they were built by a race of giants with a strange language - Vikings? (Ref. [1](#)) Professor Fell (Ref. [2](#)) and Libyan colleagues have found a 5th century inscription at Figiug Oasis, east Morocco, recording a flight of Christian monks to North America to escape the Vandals. The script was Libyan, the language Libyan Arabic. An early Christian inscription in Libyan Arabic dialect has allegedly also been found by Fell's associates at Oak Island, Nova Scotia.

THE UNITED STATES

In this century the Hopewell trading networks broke down for some unknown reason and the Hopewell influence declined sharply. It is possible that a population explosion strained the limits of the economic system and the breakdown resulted. But along the Mississippi the Mound Builders appeared, and these were the antecedents of the Choctaws Chickasaw, Natches and others. Perhaps the greatest Indian monument of all time was constructed near Chillicothe, Ohio. This Great Serpent Mound, representing a serpent with open jaws clasping an egg, is 1,254 feet long, winding along hilltops with a coiled tail. It does not appear to have any connection with the effigy mounds farther north. See also **America in the 3rd century C.E.** (Ref. [3](#))

In the southwest this was the Basket Maker III or Late Basketmaker period of the Anasazi Indians who were using fired earthenware pottery, the technique probably learned from the Mogollons to the south. The water supply for their crops had become inconsistent drought alternating with floods, but the Anasazi solved this problem by special terracing and the building of small dams with irrigation channels. One water-way in southwestern Colorado, however, was four miles long. These people had become skillful builders, using stone and beginning to construct complex homes which we now call pueblos. (Ref. 4, 5)

Once again we must report some almost unbelievable, unconfirmed statements of Barry Fell. In his latest book (Ref. 6) he writes that mathematical notation was revolutionized in this century when Nevada voyagers brought back the decimal system from India. Since European decimal ciphers were not used until the 11th century, this, if true, would place American mathematicians far ahead of their Mediterranean contemporaries. The decimal system required a new type of abacus, to the base ten, and such has allegedly been found in Indiana and is now in the Epigraphic Museum. Abaci from Nevada have previously been mistaken for gaming boards, according to this same author. It is very difficult to accept all these concepts at face value at this time without more corroboration, but Fell does present his evidence in a convincing manner and who knows but what time may yet prove him right?

The pioneering phase of the Hohokam ended about A.D. 500. Interchange with Mexico had continued through the centuries and now the bloody, Mexican ball game associated with religious ritual was introduced. Platform mounds similar to those in Mexico were also erected for use of dancers and musicians. A favorite design on Hohokam pottery was the snake, often shown being attacked by a bird (feathered serpent motive). After the end of this century the Hohokam began to spread out from the desert valleys, moving up the rivers north and northeast. (Ref. 7)

The Mogollon Culture farther to the east continued as previously and it is apparent in the literature that not all writers separate this from the Hohokam and/or Anasazi cultures, but in some respects it is definitely unique. (Ref. 8)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

This may have been the zenith of the Teotihuacan civilization which was the spiritual metropolis of Mexico. Despite a century of modern research no one still is able to say for certain who built this great city, what language they spoke or why they suddenly seemed to vanish. It overlooked a fertile valley with plenty of water and great supplies of obsidian, the raw material for utensils and weapons of great sharpness. Nine-tenths of the city is still buried today. (Ref. 9)

There was also continued growth of the Maya centers of Yucatan with extensive trading including the importation of salt, obsidian and other minerals such as hematite, pyrite and jade. Craftsmen, accountants, commercial diplomats and other experts were needed to run this network. (Ref. 10) According to Principal Epochs of the Ancient History of Yucatan, written in the Maya language from memory by an elderly Indian and translated by the 19th century Don Pio Perez¹ the Mayas thought that they were descendants of the Toltecs of Mexico who had arrived in Yucatan between 144 and 217 of our era, but Bacalar and Chichen Itze were apparently not established until between 360 and 432. A few people continued to live in dispersed settlements around the old center of Cerros until about 450, but this would never again recover its place in the great trade network.

This century marked the end of the Period IV in Costa Rican history and was marked by the prolific jade carvings. The best quality jadeite may have been brought to Costa Rica from the north, indicating more and more contact with other Mesoamerican cultures.

Perhaps ceremonial metates, maceheads and jades were used there by an elite group who held these items as badges of office. Most of the jades take the form of the axe-god in which a forest clearing tool makes up the lower half of a pendant. (Ref. 12)

SOUTH AMERICA

In the heart of the central coast of Peru there is a long archeological gap from the time of the Chavin Society to about A.D. 450 when the Early Lima or the Maranga Society appeared with the building of a number of ziggurats on a large hacienda. Maranga territory, as revealed by pottery remains, stretched from the Chillón to the Lurin valleys. The people probably used lateral canals for irrigation. By

the beginning of the 20th century there were still about 75 of their great pyramidal mound dwellings in and around Lima but they are gone now. In the lower Chillon Valley there are the ruins of a vast rectangular enclosure 700 feet long, made of trapezoidal clay blocks, each weighing several hundred pounds. They also made long, high, straight walls, miles long, running obliquely to the river bank. These people apparently came from "nowhere" and disappeared again after a few centuries.

During this same period the Tiahuanaco Society flourished in the high Andes. (See multiple previous centuries). In the south the Nazcas may have reached their apex with the construction of the puzzling giant geometric shapes and outlines of animals and plants, made by arranging stones in lines covering some 200 square miles and actually identifiable only from the air. Tons of small stones were so used and strings were stretched from posts to keep the lines straight. Carbon dating of some of the post remains indicates A.D. 500. Maria Reiche, who has spent her adult life in these desert drawings, believes that they are forms of a giant calendar. Another possibility is that they were part of a fertility cult.

In Columbia, 250 miles south-west of Bogata, in a dense forest there are more than 300 large stone statues, some 14 to 21 feet tall, some with teeth like cats and some which seem to be feeding on the children they are holding. Carbon - 14 dating indicates that these were made between this 5th and the 12th centuries. A certain affinity of these statues to those of Easter Island gives some further credence to Thor Heyerdahl's theories of South American migrations into the Pacific. (Ref. [13](#), [14](#))

[1](#)

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

[2](#)

[66] FELL, BARRY, Saga America. (Times Books, New York, 1980).

[3](#)

[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

[4](#)

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

1. As quoted in the Appendix of Stephens book (Ref. 11).

America: A.D. 501 to 600

AMERICA

NORTH AMERICA

CANADA AND THE FAR NORTH

See previous chapters and **9th century C.E.**, as well as **Europe: A.D. 501 to 600.**

THE UNITED STATES

The Mississippian Culture of Mound Builders, which now replaced the decaying Hopewell Culture, flowered along the Mississippi River and other river systems of the south.

Archaeologists do not agree about its origin. Some attribute it to the migration of ideas from Mexico or Central America and it is true that some of the sophisticated art does resemble Middle American. But even more of the art seems to have had roots in Adena or Hopewell and current thinking treats the Mississippian as an indigenous culture, an outgrowth of the Hopewell blended with late arriving Mexican elements. The characteristic feature of the culture is the pyramidal mound serving as a foundation for a temple or a chief's house. Some centers were very small but others were gigantic, as Cahokia at East St. Louis, Illinois, where there were more than 85 mounds and a village area that extended for six miles along the Ohio River. One of the largest of the mounds was about 100 feet high and its base covered 16 acres. The immensity of the labor involved, without the use of wheels or beasts of burden, is almost unbelievable. The entire enterprise may have taken several hundreds of years. The Mississippian population was dense in that at least 383 villages bordered the Mississippi River in the short distance of about 700 miles between points of entrance of the Ohio

and Red rivers respectively and there were thousands of other villages up and down the other parts of the river system. (Ref. 1)

If we are to believe Professor Fell (Ref. 2) Libyan science and mathematics continued to flourish in the southwest. The Hohokam continued their colonizing migrations, beginning their colonial period sometime after 550, spreading artifacts over most of Arizona and taking with them their customs, including the sacred ball-game. Farther northeast the Anasazi or Pueblo Builders, continued advancement with better pottery designs and increased trade, importing abalone shells and turquoise. (Ref. 3) From a source still unknown they obtained the bow and arrow and they developed the hafted ax. Agriculture increased with the cultivation of better corn, squash and beans, which added protein to their diet. Their population then soared and their settlements spread so that they even had pit houses in the cliffs of the Grand Canyon. (Ref. 4)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

Teotihuacán in the Valley of Mexico was at the height of its power and was larger than imperial Rome, some estimating the population at 125,000 with an area of 20 square kilometers. (Ref. 5) It was a religious and cultural capital and a major economic and political center for Middle America. Its power extended widely with intermingling of tribes and cultures, so that there was a strong Mexican presence even at Kaminaljuyu (now Guatemala City). Even the lowland Maya region, as at Tikal, had Teotihuacan artistic traditions, although Tikal was only one-fifth as large as the Mexican city.

The Maya had a number of languages, all closely related but not mutually intelligible. There were two principal divisions - the lowlands groups, including Yucatec, Chol and Chorti - and the highlands (Guatemalan) which included Mam and Quiche. The educated Maya were profoundly intellectual and we have noted their mathematics (0 to 100 A.D.) and astronomy (A.D. 301 to 400) previously. A great renaissance of Mayan Culture now took place in the cities of Yucatan, gradually supplanting the importance of Peten, in the south. (Ref. 6, 7, 8, 9) According to traditions, picture writings and Mexican manuscripts written after the conquest, the Toltecs¹ were banished from their native country northwest of Mexico in 596 and proceeded southward. (Ref. 10)

This century marks the beginning of Period V of Costa Rican prehistory, with each of three archaeological zones developing independently. In Guanacaste-Nicoya there was the beginning of the famous Nicoya polychrome pottery tradition which resembled Maya ceramics of the Late Classic period of Honduras and El Salvador. The progress in Panama seemed to come more or less to a halt and this country never developed any truly state-centered societies as seen farther north in Central America. (Ref. 11)

SOUTH AMERICA

NORTHERN AND WESTERN SOUTH AMERICA

Along various parts of the Magdalena River Valley in Colombia and particularly near San Agustín are enormous piles of debris, some of which have been excavated revealing sculptured monoliths and the whole indicating a great ceremonial center something like a Maya complex. Radio-carbon datings indicate activity in this 6th century with continuation for another 1,000 years. Since it has some similarities to both the Olmecs and to Easter Island the question arises as to whether this astonishing statuary was local in origin or from migrating people from Central America or even from Polynesia. Just east of Popayan on the eastern hot-land part of Andean Columbia is an interior, isolated valley called "Tierradentro" where there are interesting monuments perhaps dating to this same era, although it may be a secondary society having existed a thousand years later. Accurate dating has not been accomplished. Tombs there have long ago been looted, probably of gold and jewels, but three dimensional statues reminiscent of Easter Island and representing anthropomorphic gods are comparable to those of San Agustín. (Ref. 12)

Peru consisted of about nine separate regions, each with its own local art style in this century. The Moche, or their descendants, and the Nasca were supreme but other states of some consequence were Cajamarca, Recuary, Lima, Huarpa, Waru, Tiahuanaco and Atacameno, all of which used gold, silver and copper for tools as well as jewelry. In Ecuador, beginning about A.D. 500, there were people of the Milagro Culture, noted for elaborate work in gold and for artificial mounds for burial places and home sites. Some of the latter seem to be associated with ridge systems and others with rectangular earth-works, probably made to farm lands subject to

seasonal flooding. This culture may have been an off-shoot of the Moche of Peru, described in previous chapters. Similar farming ridges cover many thousands of acres in Bolivia and Colombia and are present near Lake Titicaca, although the dating of these has not been done. (Ref. 13, 14)

EASTERN SOUTH AMERICA

There were farming tribes in the Amazon rain forest, cultivating manioc. Farther south the Tuni-Guarania tribes had migrated from the Amazon basin into the Brazilian forest and savannah. In what is now Argentina, there was the Aguada Culture about A.D. 600, characterized by black and yellow pottery with feline motives. (Ref. 15, 16)

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[64] FARB, PETER, Man's Rise to Civilization. (E.P. Dutton & Co., New York, 1968).

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1. This suggests the probability of more continuity and interrelationships among the original Mexican populations than often stated. Modern histories do not mention the Toltecs as a separate people until about the 9th century.

America: A.D. 601 to 700

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

(See [previous](#) and [9th centuries](#))

THE UNITED STATES

By 600 A.D. the cultural primacy in North America had passed from the Hopewell area to the lower Mississippi valley, particularly in the fertile flood plain between St. Louis and New Orleans, the land of the Mound Builders. (Ref. [1](#)).

In the southwest the Anasazi Indians continued to multiply, with Basket-maker sites extending from the region of present day Lake Mead in Nevada, through southern Utah into the southwest corner of Colorado and then down to northwestern New Mexico and northeastern Arizona. By both archeomagnetism dating of charred wood beams of burned pit-house ceilings and tree-ring dating, their society can be followed in this large area quite exactly. (Ref. [2](#)) The Hohokam Colonial Period and the Mogollon Cultures continued south of the Anasazi.

About A.D. 600 a distinctive group of Indians appeared near the lower end of the Colorado River (southwestern Arizona and an extreme eastern slice of California). These were called the Patayan (also Hakataya) and were Yuman-speaking people who used the flood plains of the Colorado delta for farming, had a unique paddle and anvil pottery decorated with red paint and ground their corn on a trough-shaped metate. Living in this area for 900 years, they became then the modern Yumas, Cocopah, Maricopa, Havasupai, Mojave and Walapai. (Ref. [3](#), [4](#)) Consistent with his other claims,

Fell (Ref. 5) purports to read Islamic inscriptions on certain Nevada rocks and feels that Arabic Libyans made these shortly after A.D. 650 when Islam came into North Africa.

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

By A.D. 600 Teotihuacán in Mexico had a population of perhaps 150,000 to 200,000 and covered about 8 square miles. The city was laid out in a precise grid pattern with large city buildings and apartments for families, offering a maximum of privacy in a crowded city. There still is considerable confusion as to the people who lived in this community.

As mentioned in a previous chapter, old Indian legend called these people "Toltecs" and this may be accurate, even though current usage reserves this term for the later rejuvenated civilization centered at Tula in the 9th and 10th centuries. By at least 650, Teotihuacán was beginning to show signs of impending collapse and the reason for this is another thing that has not been clarified. (Ref. 6, 7, 8)

The lowland Maya made a strong comeback in this century, with several centers flourishing. At least 45,000 people lived at or around Tikal and its sprawling pyramids, temples and house mounds covered some 38 square miles in the dense rain forest of northern Peten.

The most elaborate structure was the so-called northern Acropolis, which covered 2112 acres with 100 buildings and at one time 16 temples. At the same time the Yucatan Mayas were also active. (Ref. 9, 10) The Period V Culture continued in Costa Rica, as noted in the last chapter.

SOUTH AMERICA

In Peru the balance of power after A.D. 600 shifted from the coast to the highlands where the city of Tiahuanaco and the Huari military machine dominated the central Andes by carving out empires that included not only all of Peru and Bolivia, but also part of northern Chile. There were still coastal people of the Nazca Culture, however, and a study of the skeleton of an 8 year old boy from around A.D. 700 in this area showed classical Pott's disease (tuberculosis of the spine) with a psoas abscess, renal disease,

pericarditis and terminal miliary tuberculosis of his lungs. In the north there was still Moche influence, perhaps manifested at that time in the Chimú Society, although dating has been difficult. (Ref. 11, 12)

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America: A.D. 701 to 800

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

The Dorset Arctic Culture continued its many centuries of existence in the far north. Additional details will be given in the next chapter. We have little definitive information about the Canadian Indian tribes at this particularly period, but certainly the far western groups continued as previously and may well have been the sending-off point for the Polynesian migrations into the Pacific.

THE UNITED STATES

"The scale and flamboyance of Mississippian social dwarfed anything known before in North America."¹ There were enormous ceremonial centers, with truncated pyramids and huge plazas (as at Cahokia, Mississippi) resembling Mexican centers, with brilliant artistry and a new religious symbolism, reflecting a fascination with human sacrifice, sun and fire. The people had corn fields, pottery, obsidian knives, warehouses, administrative buildings, copper, shell, stone and wood objects. Copper sheets were embossed with human portraits. There was apparently a nobility who lived in special homes arranged about the temples. This society flourished for at least 8 centuries (Ref. 1).

The central and lower Mississippi cultures were centered between St. Louis and Memphis but spread to Wisconsin, Oklahoma, and Alabama and was still in existence when the Spanish came with the white man's diseases. *The Encyclopedia of Archeology* (Ref. 2) says that the new traits of this culture were:

1. Rectangular, flat topped mounds used for temple bases
2. New pottery - using pulverized shell for temper with new shapes and decorations
3. Maize, as the chief crop

Some of the truncated platform temple mounds were up to 100 feet tall, with structures for religious and/or political purposes on top. Frequently there were several in clusters, spread over several acres. The temples area and residences were surrounded by maize fields with the Corn Mother goddess playing a vital role in the lives of the Mississippian people. Beans, peas, squash and sunflowers rounded out their crops. (Ref. 3).

The historic Indian tribes of the plains such as the Pawnee, Osage, and Arikara, for example, perpetuated the mixed horticultural and bison hunting economy of the previous 800 to 1,000 years. Some of their ancestors' large villages have been excavated along the Missouri and its tributaries. (Ref. 4)

The Colonial Period of the Hohokam continued in the southwest. Their ball courts varied greatly in size from 20 meters to over 100 meters in length. Some believe they were used for the religious Meso-American style ball games but others believe they were stages for a dance. (Ref. 5) According to the remaining available arrow heads, it was sometime between 700 and 900 that the bow and arrow began to be used, rather than the spear, by the Mogollon tribes. These people, first to use pottery in the southwest, developed increasing skill in this endeavor, as they made it by coiling and scraping, not with a pottery wheel. In northern Arizona and New Mexico the Anasazi Culture now shifted from the Basket-maker into the Pueblo Period, with five sub-divisions extending up to modern times. The Pueblo I period lasted two centuries from A.D. 700 to 900, with their pottery showing some strange new shapes, including some made to look like birds. (Ref. 6, 7, 8) Masonry rubble in the Chaco Canyon suggests a gradual shift to ground-level construction of multi-roomed houses which were the first pueblos. It was at this time that the Anasazi mothers started strapping their babies to hard, wooden cradleboards producing flattening of the back of their heads. Kivas became focal points of community and religious practices. (Ref. 9).²

MEXICO AND CENTRAL AMERICA

Legend says that the Toltecs built their capital at Tula in A.D. 720. About 750 much of central Teotihuacan was looted and burned. Perhaps developing drought and arid conditions, as well as military pressure from the north, contributed to the down fall of this civilization, which then shrunk to a series of villages over an area of one square kilometer. Its fall had repercussions throughout middle America. (Ref. [11](#), [12](#))

Although it is difficult to keep Fell's (Ref. [13](#)) chronology sorted out, he seems to imply that it was in this century that Americans from the southwest, perhaps with Libyan influence, explored the Pacific and mapped Hawaii.

The lowland Maya Culture continued strong and the National Geographic Society (Ref. [14](#)) dates extensive Mayan projects in Tikal, Guatemala, to this century. These included a summit temple 212 feet high. At the height of its power Tikal had 40,000 inhabitants and its nuclear area alone had more than 3,000 separate structures and some 200 stone monuments, not to mention reservoirs, a central acropolis and a square containing a market area, sweat bath and a ball-game court. A great Maya ceremonial center was at Palenque, Mexico, and one of the most beautiful city sites of the Classic Period was at Copan, Honduras. (Ref. [15](#)) Some buildings, as at Uxmal, Mexico, had cement and rubble cores faced with a veneer of thin, finely carved limestone slabs and elaborately decorated moldings. Three rooms of painted narrative scenes of Maya life were completed at Bonampak, near the Quatemalan border. Henri Stierlin (Ref. [16](#)) writes that the Mayan Yucatan civilization was in full bloom in this century and on through the 10th, creating new styles of architecture. Among the Maya, medicine was carried on by two separate groups: Hemenes, priests organized into a medical society; and the lesser, non-priestly hechiceros, who took care of treating wounds, opening abscesses, reducing fractures, controlling bleeding, etc. (Ref. [17](#))

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SOUTH AMERICA

NORTHERN AND WESTERN SOUTH AMERICA

Huari, capital of a political state which embraced most of Peru, was overthrown and abandoned about A.D. 800 and Peru was not unified again until the Inca conquest of the 15th century. (Ref. 19) The archeology of this entire period of A.D. 600 to 1,000 is called the Middle Horizon and it includes the emergence of the characteristic style of Tiahuanaco, near Lake Titicaca. There was control of food resources and population movements over a wide area but particularly near Tiahuanaco where the altitude is over 12,000 feet. This Middle Horizon Culture showed polychrome pottery beakers with human, animal and other designs. There was an urban area of perhaps one square mile with an estimated population of between 5,000 and 20,000. (Ref. 20)

Tiahuanaco had a bird-man cult (as the later Chimú and also Easter Island) and the later Inca traditions maintained that the legendary god-men who built Tiahuanaco extended their ear lobes and called themselves "Big Ears" (just as the original Easter Island inhabitants). Later Spanish explorers, particularly Pizarro's companion, Juan de Betanzos, who married an Inca woman, recorded the legend that the white and bearded Tiahuanaco leader, Ticci, stopped over in Cuzco on the way from Lake Titicaca to appoint a local successor and leave orders about producing the large ears, before he went down to the ocean, never to be seen again. This Ticci, who left the Peruvian coast, is undoubtedly the same Tiki-with-large-ears, of Marquesan myth, who led humanity to Polynesia but it is only on Easter Island that ear extension assumed social importance equal to that of Peru. What is definitely known is that Tiahuanacoid objects made in the upper Andes began to appear in the lower, central Andes about A.D. 750. Whether this merely represents the raiding of war parties to the lower lands or actual domination of the lower valleys by the Tiahuanacoid chiefdoms is not known. (Ref. 21, 22)

The remnants of the Moche kingdom continued to decline as the southern states dominated the area. On the coast of Surinam, in what later became Dutch Guiana, about A.D. 700 the sea encroached on the land so that the people were obliged to build a mound as a village site and presumably to make ridges for their crops. This mounded area was occupied continuously until at least

A.D. 900. (Ref. [23](#))

EASTERN SOUTH AMERICA

On the eastern part of the continent there were two settled areas - the Amazonas and Orinoco Basin - and the southern plains. The chief settlement in the latter was the Parana basin where archeologists have found sites dating back to the high Holocene period. But in this 8th century great numbers of Tupis and Guaranis came from Brazil to settle in this region. They lived in fortified villages, eating corn, squash and fish. Even in Brazil, ethnologists have observed cultural traits that are typical of the later Africanized Ecuadorian coast. There are many items that speak for continent to continent migration. The practice of circumcision, for one, may link eastern South America with Africa, not just South Asia. (Ref. [24](#))

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America: A.D. 901 to 1000

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

We have previously mentioned the Thule Inuit Culture which spread all across the Canadian arctic and Greenland after about 800 A. D. No one knows if the Thule people drove off or simply absorbed the Dorset tribes. Perhaps the latter simply couldn't adapt to the warming climatic change that occurred about this time. In summer the Thule people lived in tents, as had the Dorsets, but their winter houses were better. Foundations of these structures were dug into the ground with tunnel entrances, which trapped warm air inside, and walls and roofs were added of stone, sod or occasionally the baleen and bones bowhead whales. (Ref. 1, 2)

The eastern coast of Greenland is only about 250 statute-miles across the Denmark Strait from Iceland, so it is not remarkable that Icelanders soon knew of its existence. Of course the eastern coast of Greenland is and was very inhospitable to man and the journey around its southern tip to the more livable western coast was somewhat difficult. The fact that the climatic conditions were different in the 10th century and that at A.D. 1,000 parts of Greenland were actually green, probably helped. At any rate, Erik the Red, known as a criminal both in his original Jaeder, Norway home and also in Iceland, took to the sea about 980, landing and exploring southern Greenland, a land which had been reported as seen by another Iclander some 50 years or more previously. After three years of exploration, Eric returned to Iceland, got into more trouble and organized one of the largest arctic expeditions on record to return to Greenland for permanent settlement. He

obtained 35 cargo vessels¹ with several hundred men, women and children and all their possessions, including horses, cattle, sheep, pigs and dogs. Only 14 of these open ships were actually able to round the stormy south cape of Greenland to safely land on the quieter west coast, but there they built their settlements². Seals, fish, whales and sea-birds were abundant and fur and walrus ivory could be exported to Europe.

At the very end of the century Leif Erikson, son of Eric the Red, while on a regular trade trip back to Norway, was entertained by the enthusiastic Christian King Olav Tryggveson and commissioned to take a Catholic priest and several religious teachers back to Greenland. Leif departed Norway just before Olav's death in 1,000 and did bring Christianity to Greenland and shortly thereafter allegedly to Vinland³ on the true North American continent. This mainland had been accidentally discovered by Bjarno Herjolfsson from Iceland when on his first trip to Greenland he had missed that large island and hit Newfoundland.

Recent excavations on the northern most tip of Newfoundland have revealed remains of houses, boat sheds and bronze equipment, obviously Norse and dated to about A.D. 1000. (Ref. [5](#), [6](#), [7](#)) Brandel quotes from a lecture by Henri Pirenne: "America (when the Vikings reached it) was lost as soon as it was discovered, because Europe did not yet need it."⁴

THE UNITED STATES

In mid-continent the Mississippi Culture flourished. In the Ozarks of Arkansas, Oklahoma and Mississippi, bluff dwellers constructed rock-shelters, caves and open village sites. Baskets of twilled weave, flour sieves and containers, hunting, fishing, farming bone hoes and tools as well as antler and wooden digging sticks and pottery have been found. These sites were occupied throughout this century and after. It is probable that at about the end of the century the Mississippi group of tribes began to feel the sting of Iroquois attacks from the south, as there are reasons for suspecting that these fierce warriors came via the Gulf of Mexico, probably from South America. (Ref. [9](#))

Marvin F. Kivett, of the Nebraska State Historical Society, has identified the "Initial Coalescent Culture" that existed from about 900 to 1,400 in the Dakotas. This culture was formed when corn farmers of the central plains (now Kansas, Nebraska and Oklahoma)

were forced by droughts to move up the river valleys northward into the Dakotas, where they merged with the initial middle Missouri Culture already established along the river of the same name. Today their descendants are believed to be the Arikara Indians of North Dakota. (Ref. [10](#), [11](#))

In the west the Fremont rock art existed at the same time along the Fremont River in Utah as the Anasazi Pueblo Culture existed a little farther south, all of this dating from 750 to 1,200. Construction began on the Pueblo Bonita at Chaco Canyon in New Mexico about A.D. 900. Although building materials of mud, stones and wood was the same as those used by the Mesa Verde Indians, the architecture was markedly superior in principle as well as in technical detail and artistry. The population appears to have been fairly consistent, running between 800 and 1,200 people. (Ref. [12](#)) Studies of excavation sites and skeletons have revealed much about these people. One-third died in infancy; forty years meant old age, with teeth worn to the gums from the grit that ended up in the corn meal from the metate, jaw abscesses and arthritis. Clothes were made of hides and cotton cloth, stitched with yucca leaf fibers. Hundreds of tons of sandstone blocks were carried varying distances for construction of the pueblos. The men spent much of their time searching for firewood and hunting for animal food. When the hunt was poor, the remaining protein deficient diet sapped strength and when famine did occur there may have been cannibalism. (Ref. [13](#))

Snaketown, on the Gila River southeast of Phoenix, Arizona, was the capital city of the Hohokam until A.D. 1,200. In the 10th century these people entered the Sedentary Period. Population increased, as evidenced by the more numerous villages and longer canals. Specialized villages procured marine shells from the Gulf of California and worked them into jewelry that was traded as far north as Flagstaff. (Ref. [14](#)) Their technique included a method of etching designs on shells using an acid solution made from the giant cactus, saguaro. (Ref. [15](#), [16](#), [17](#))

Harold Gladwin, in his book *History of the Ancient Southwest*⁵, gives the end of this century as the time of the first serious incursion of the Athapascan tribesmen into the Pueblo areas. These were the Apaches, who had slowly migrated down from the northern reaches of Canada, bringing their variety of the Athapascan tongue. This century also was the time of the Pueblo II period, with still further pottery changes.

At A.D. 1,000 the Mogollon farming period was coming to an end, but in the Mimbres River area of southern New Mexico, the pottery was decorated with very beautiful and complex triangles, scrolls and zigzag lines with life-like decorations of animals and men inside the bowls. No one knows what happened to these people. They may have been absorbed by others coming down from the northern plateaus. There is little question but what the modern Hopi and Zuni Indians, later considered as part of the pueblo builders, were influenced by the Mogollons. (Ref. [19](#))

In southern California the desert tradition continued until the end of the century when present day Yuma and Shoshone Indians may have moved into the area. The Shoshone language is related to the later Aztec. (Ref. [20](#))

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

The present day concept is that the Toltecs originated as a blend of northern nomads and civilized Mexican groups in central Mexico, but they became Mexico's greatest militaristic power for two centuries. The Classic Period in the northern Lowlands ended with the invasion of these Toltecs, who established themselves at Chichen Itze in Yucatan about 1,000⁶, ruling the native people, although their homeland embraced much of northern Mexico and their capital was at Tula, about 60 miles north of present Mexico City. The Toltec style pyramid erected in Chichen Itze was dedicated to Quetzatcoatl, whose Mayan name was Kukulcan and the old Mayan and Mexican cultures blended there. The true Mayan civilization was gone and had given way to the Yucatec in Central America, with a major religious and political center remaining at Chichen Itze. In the highlands there was no actual collapse of the previous culture but even here Toltec influences began to appear. The Huastec civilization at Veracruz continued and burial chambers at that time indicate that there were elaborate entombment ceremonies, with the deceased accompanied in the grave by an attendant and various objects indicating considerable wealth.

An interesting side light to 10th century Mexico has been added by Jeffrey Wilkerson's excavations (Ref. [22](#)) at El Tajin in Vera Cruz, where some ten ball courts have been found. The "game" was an important religious ceremonial, using a solid rubber ball about six inches in diameter and propelled from one end of the court to the

other by use of hips and perhaps at times elbows, upper arms and knees. A player, perhaps pre-selected, and perhaps impersonating a god, was decapitated at the conclusion of the "game". El Tajin's rulers were named in the ancient Meso-American fashion according to their birth date in the 260 day Sacred Round religious calendar (composed of 20 rotating day names and 13 numerical prefixes). The chief ruler in this century, who may have been one of the last, was called 13 Rabbit and he was always represented in drawings by a rabbit on top of three dots and two bars, over his head. (See **America: 0 to A.D. 100**, regarding this mathematical notation). After 13 Rabbit's time, El Tajin appears to have been destroyed, perhaps by the Totanacs who live there now. (Ref. [23](#), [24](#), [25](#), [26](#), [27](#), [28](#))

Ritual human sacrifices occurred throughout the Classic Period in Central America, even in the Classic Maya Society and the Late Post-classic Period (A.D. 900-1,400) showed this on an ever increasing scale. (Ref. [29](#)) The history of the bow and arrow in this region is difficult to clarify. It appears that this weapon was introduced to the Early Post-classic Maya about A.D. 1,000 by mercenary Toltecs from the Valley of Mexico. The bow then replaced the atlatl, which had previously been introduced by the Teotihuacanos. Actual descriptions of the use of bows and arrows by Maya, however, did not appear until some centuries later. (Ref. [30](#))

Costa Rica continued in the archeological Period V, with an increasing preference for level, fertile land suitable for agriculture. Active trade with other parts of Central America is revealed by the discovery of such objects as alabaster jars from Honduras and early varieties of Plumbate pottery, a ware with a metallic-type, vitrified surface made in Guatemala or El Salvador. (Ref. [31](#))

[SOUTH AMERICA](#)

By about A.D. 900 the Aymaras Indians established a culture in Bolivia (known as "upper" Peru) and this existed for some 300 years until they were subjugated by the Incas. By the year 1,000, or even earlier, all coastal evidence of Tiahuanacoan influence was gone. The invaders, if they were actually such, had blended with the local coastal populations. According to radio-carbon datings, nothing of value was produced in any place about Lake Titicaca after A.D.

1,000 and the beautiful pottery and fabrics had been replaced by motifs of Collao. Actual archeological knowledge of the centuries just prior to the Spanish conquest, however, is very poor. Except for the presence of two large centers - Tiahuanaco in Bolivia and Huari in Peru - actual dates and duration unknown, there is little concrete information. (Ref. 32)

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1. These were broader and stronger than the fast, slender Viking attack ships. (Ref. 3).
2. There were two main settlements - Brattahlid and one farther north near the modern Godthab.
3. The "grapes" of Vinland may well have been mountain cranberries, wild currents or gooseberries and the wild "wheat" described by Eric may have been Lyme grass. (Ref. 4).
4. The quotation is from Braudel (Ref. 8), page 335.
5. As quoted by Tamarin and Glubok (Ref. 18).
6. Other ideas about the Toltecs have been mentioned on pages 427 and 451. Old Maya legends apparently confused their own history with that of the Toltecs, whom they considered their ancestors. Stephens (Ref. 21) quotes from Principal Epochs of the Ancient History of Yucatan, written in the Maya language from memory by an old Indian and translated in the early 19th century by Don Pio Perez, to the effect that the Toltecs first came to Chichen Itza in 432, stayed until 576 and then returned a second time in 936.

America: A.D. 1001 to 1100

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

The Arctic Thule Culture of northern Canada, northwestern Alaska and western Greenland existed at least from about A.D. 1000 to 1800. The people lived in circular houses, partially subterranean, with whalebone, turf and stone roofs and they used dog sleds with the dogs harnessed in a fan-shape, rather than in tandem. They had Umiak and Kayak boats and represented the final Eskimo Culture of the northern maritime tradition. (Ref. 1) Please also see adjacent modules.

Rose Palmer (Ref. 2) of the Smithsonian Institute confirms the distinct physical and language characteristics of the Northwest coastal Indians. She describes the Nootka and Kwakiutl people of Vancouver Island as having long, distinct faces with high hooked noses. They used copper and had well built houses 40 to 60 feet square, with gable roof s, fireplaces and doors facing the sea, along with family totems. The Haida of the Queen Charlotte Islands were also of a unique Indian type, larger, more stalwart and of lighter complexion. The women were tall and athletic in contrast to other typical Indian women, who tend to be short and fat. The Haida made long voyages in dug-out canoes of red cedar, some carrying 100 persons and equipment, to as far as Vancouver Island and Puget Sound. Wood carvings on totem poles often 50 to 60 feet high, formed part of the front of their buildings. All of the north coastal Indians remained fairly well isolated from the remainder of the continent and other Indian tribes by virtue of the high coastal mountain ranges which made access inland very difficult. (Ref. 3,

4)

Carbon- 14 dating of recent excavations of several buildings and a great hall of an old Viking settlement in northern New Foundland, puts the date as A.D. 1060 (+ 70 years).

This settlement was probably founded by Leif Erickson, who also apparently went ashore on Baffin Island, calling it "Helluland" and then on down the American coast to Labrador, which he called "Markland". "Vinland", also described by the Norse, undoubtedly was somewhere on the North American coast, possibly Rhode Island, Massachusetts, Labrador or Newfoundland. The latter seems most probable because of the recent excavations, but if so, its wine industry certainly disappeared quickly. At any rate, subsequent to Leif's visit to Vinland, Thorfinn Karlsefne settled this new land with 60 men and 5 women, along with cattle and other animals. Although at first friendly with the native aborigines, eventually there was war, with the Indians attacking in swarms by canoe, ultimately driving out the newcomers. Two Indian boys were captured, however, subsequently taught Norwegian, baptized and taken to Greenland where the colonies were thriving. The warm climatic situation of this century, which allowed an ice-free North Atlantic Ocean, certainly was a factor in these Norse voyages. (Ref. 5, 6, 7, 8, 9)

THE UNITED STATES

The Mississippian and related cultures continued to exist in the mid-continent. Please see the preceding chapters. It should be mentioned, in passing, that Barry Fell (Ref. 10) feels that numerous artifacts which have been found along the Mississippi and Arkansas rivers, as well as among the Algonquin and Iroquois Indians, are in fact replicas of old Irish-Norse coins and English pennies which had been paid as Danegeld, and originally distributed along the North American coast and rivers by additional voyages of Leif Erickson. Gloria Farley, a co-worker of Fell, has described finding Norse runes in Oklahoma rock inscriptions, dating to about 1050. (Ref. 11, 12)

Southeastern Indians knew much more about metallurgy than generally realized. They made decorative and utilitarian objects from lead and had acquired and used copper from local sources. They fashioned beads, bracelets, earrings, ceremonial knives and axes, gorgets, and breast plates, some elaborately decorated with an eagle or hawk. This metallurgy seemed to be associated with the so-

called Southeastern Ceremonial Complex, a cultural association variously called the Eagle, Hawk, Buzzard or Southern Cult. It was associated with fire and sun worship and bird motifs. Sun circles, bi-lobed arrows, forked eyes, hand and eye and crosses can all be found engraved on copper and shell. Before Europeans arrived the south was not rural, as the aborigines lived in towns. Although no one is sure of the location, there were Cofitachiqui, Mabila and Apalachee Indian centers, each of whose populations numbered in the thousands. Some were fortified and palisaded. A pole 50 or more feet in height erected on a small mound in a ceremonial ball game area was important in the culture. Certain death practices were similar throughout the South, in that bones of the dead were cleaned and stored in boxes or baskets. Granaries were commonplace and any town of consequence had a sweat house, or sauna. (Ref. 13)

Some writers have stated that in the southwest the Hohokam way of life began to disappear as the people pulled back to their original homeland in the desert. (Ref. 14) More recent material indicates, however, that they had not yet even reached their "Classical Period". (Ref. 15) The Anasazi and/or related pueblo people, survived at Bonito Pueblo (Chaco Canyon, New Mexico) with their new buildings showing a masonry of facing stones carefully applied to rubble cores, a Mexican technique suggesting contact with missionaries or traders from Mexico. This concept is disputed by some, however, when they point out that new road systems of this period appeared to radiate out of Chaco northward, rather than to the south and that many of the Chaco artifacts, particularly marine shells, were probably acquired by trade with other, native southwest tribes, such as the Hohokam. The inhabitants of Chaco Canyon cut down some 50,000 trees for pueblo construction and fuel, so that the once extensive forests were stripped, allowing erosion of the canyon. Some of the heavy logs for roofing beams may have been carried as far as 30 miles. To elaborate on the remarks above, Pueblo Bonito was reconstructed in this 11th century, with workmen tearing out old walls and building new ones of a core-and-veneer type involving outer walls of sandstone blocks with earth and rubble in the center. Lower walls were more than 3 feet thick, tapering as they rose, until the rear wall was 5 stories high. When finished this pueblo held 650 rooms and may have been occupied by 1200 persons. Seven other great

pueblos were also constructed, some only a few hundred yards apart, each of similar design, in one complex. Overall there were about a dozen pueblo complexes in the Chaco Canyon with well over 2,000 rooms. At least 70 communities, similar in design but generally smaller, existed outside the canyon from a few to 100 miles away. Recent aerial studies have indicated that the great road system, mentioned above, connected these outliers to the center. The roads ran arrow straight, with cuts through some mounds and steps carved in cliff faces, all up to 30 feet wide. One of the larger outlying pueblos was on the San Juan River, 40 miles north of Chaco and known now as the Salmon ruins. Started in 1088 it was completed in 5 years and contained 300 rooms. Huge wooden beams were obtained in the La Plata mountains, more than 75 miles away. It had a great *kiva* and great tower with 6 feet thick walls rising from the second story of the town. The walls were supported by solid buttresses.

The Bonito people monitored the solar cycles with a solar observatory on Fajada Butte. Spiral patterns carved into native rock caught shafts of light between other rocks in a precise way, which indicated the solstices and equinoxes. A scarcity of burials at the Great Chaco complex has posed some questions and resulted in numerous theories. Was this only a large ceremonial center serving as a *mecca* for pilgrims coming in on the great road system? Or was it a type of federal city for handling the outlier's trade and political alliances? (Ref. 16) Near the end of the century the pueblo dwellers increased their defenses, building watch towers, doubling wall thicknesses and restricting access to their homes, suggesting that the Apaches were reaching this territory. (Ref. 17)

According to ancient Indian beliefs the San Francisco Peaks¹ which are surrounded by a large volcanic area in northern Arizona, are the home of Kachina spirits. Some Indians had lived in pit-houses near those peaks since about A.D. 600 but suddenly in A.D. 1065 there was a violent volcanic eruption, with a cone of cinders and ash thrown a thousand feet high and a stream of lava flowed on the ground. Black ash covered 800 square miles and the terrified Indians left. When they eventually cautiously returned they found that the ash had trapped water beneath and had produced a very fertile area which could be farmed with very little extra moisture needed. Archeologists have given those Indians the name "Senagua", meaning "without water". The rich soil attracted others, including

Hohokam, Mogollon and Cohonina and there was an interchange of ideas and cultures. (Ref. [18](#))

The Mogollon Culture of southern New Mexico and eastern Arizona had continued through the centuries in various stages of development. The people of that area now began to build houses in the pueblo style with buildings above ground. They had fine, polychrome member pottery, some with red designs on brown and some with rectangular designs with white stripes. Other pottery was black on white with complicated curvilinear and rectilinear designs. Cotton was grown and used as cloth. (Ref. [19](#))

A unique Indian culture, which was earlier considered of unknown antecedents and descendants, flourished about 950 to 1150 in southwestern New Mexico, just east of what is now Silver City. They were called *Mimbrenos*, after their river valley and were peaceful corn growers who created some of the most beautiful of American Indian pottery. This had imaginative decorations and was all accomplished without the use of the potter's wheel or the kiln. This work is coveted by museums and collectors throughout the world. It is known now that these people were part of the Mogollons. (Ref. [20](#), [21](#))

MEXICO AND CENTRAL AMERICA

The Yucatec and the Toltec civilizations, which were discussed in the last chapter, were both failing by the end of this century. According to tradition, drought and sickness took their toll among the Toltecs and their monarchy ended in 1052². Their land then lay devastated for a century. On the Gulf coast, the Huastec Society appeared at about this time. (Ref. [22](#))

SOUTH AMERICA

In this century the coastal societies came under the control of the Chimu (formerly Chimor), who built the great capital of Chan Chan near the present city of Trujillo, near the sea. This was in the old Mochican area but was an entirely new capital. From this century until the subjugation of these people by the Incas, some four centuries later, the sequence of events is very unclear. Some of the buildings of Chan Chan are very large and may have been built in different periods. Some believe part of the edifices was constructed

by invaders from the north (even from as far away as Ecuador) in about 1200.

Near Chan Chan the powerful Chicama River could be used, via a long canal, for irrigating a huge desert zone. (Ref. 24)

The Diaguites, originally of the semi-arid Argentine Andes, probably existed at this time and continued to live there until confrontation with the Spaniards some 500 years later. They have left ruins of small fortified settlements on easily defensible crests, approached by narrow, paved roads, always located near a river or spring. Farmland was terraced to save rain water. They made rock carvings and unusual pottery, one type of which is the "Santa Maria" urn, with a wide neck and side handles. (Ref. 25)

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1. These peaks are just north of Flagstaff and Williams, Arizona.
2. Trager (Ref. [23](#)) refers to the epidemic and decline as occurring in the **Mayan Empire**, but this is probably just another error in that text.

America: A.D. 1101 to 1200

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

The Thule Arctic and the Northwest Indian cultures have been described in the preceding chapters. The west Greenland settlement of Norse was prospering in this 12th century and there were at least 16 stone churches and a fine cathedral at Gardar. Pope Paschal II appointed Erik Gnupsson as the first bishop of Greenland and Vinland in 1112. At this time the southern half of Canada undoubtedly had a great number of Indian tribes, but information about them is scanty. The Norse and the Indians were apparently hostile to each other. (Ref. [1](#), [2](#))¹

¹
(Ref. [3](#))

THE UNITED STATES

In the central and southern parts of the United States the Mississippi and coalescent cultures continued as noted in the preceding chapters. In the southwest, some- time after 1150 the Mesa Verde Anasazi constructed the famous Cliff Palace, some 325 feet long, 100 feet deep, with many subterranean, sacred rooms and turret-like towers. In mid-century, however, the building stopped and the population of this and the Pueblo Bonito in Chaco Canyon, New Mexico, began to decline and the pueblos were soon abandoned, perhaps as a result of loss of arable fields as the water table lowered or incident to the severe deforestation mentioned in the last

chapter. It has been estimated that Chaco Canyon's population dropped to less than 20% of its 11th century peak. (Ref. 4) Increasing cold may have been another factor. Only the Mesa Verde people hung on in a slightly better climate. (Ref. 5) Other sources believe, however, that these pueblo Indians were driven or fled as the result of invasion by barbarian Athapascans (Apache and Navaho). In the northwestern part of Arizona at Wupatki in the sunset crater area of the Sinague, there was a structure containing over 100 rooms, with 3 stories, as well as an open air amphitheater resembling a ceremonial Anasazi kiva and a ball court. But the volcanic soils were now drained of their nutrients and farming was getting less productive. (Ref.6)

McGuire and Schiffer (Ref. 7) state that the Classic period of the Hohokam began about A.D. 1150, to last for 300 years. This was characterized by adobe compounds enclosing rectangular rooms and plazas, platform mounds, extensive irrigation canals and polychrome and polished redware ceramics. The red-on-buff pottery was distinctive of all Hohokam sites. Hundreds of villages were scattered over the Gila and Lower Salt rivers of central Arizona. In the past other writers have claimed that the Hohokam had begun a sharp decline by this century and that any advancements seen were due to invasion of the area by another group, the Salado. This view has been discarded in the last 5 to 8 years. The most obvious change in the Classic period was in architecture. Multi-storied houses appeared and the canal system was further refined, with extensive networks and some canals carried water as far as 32 kilometers. Polished red vessels tended to replace the earlier red-on-buff pottery. Although some northern frontier villages were abandoned at this time, the population of the Gila-Salt Basin increased to perhaps 20,000. (Ref. 8)

MEXICO AND CENTRAL AMERICA

Tula, the capital city of the Toltecs, was violently destroyed in the middle of this century. Although it has not been completely excavated the indications are that it was a large city with all the principal features of Toltec art and architecture.

A new Indian civilization appears to have been in an active growth phase at this time in Aztlan¹. No one is sure of the precise location of Aztlan, although Professor Sigberto Jimenez Morena

suggests that it was an island village on the San Pedro River delta, some 450 miles northwest of present Mexico City, now called Mexcallitan. This has been called the Venice of Mexico because in rainy seasons the streets flood and the people move about by canoe. The adjacent Mangrove swamps have thousands of herons, including at least 15 different species. The Aztec legends say that their small tribe moved from Aztlan into the area of Tula, once the capital of the great Toltec Empire, and there they picked up what they could of the Toltec civilization from its descendants. Toynbee (Ref. 9) calls this nascent Aztec Society the "Mexic" and in this 12th century it consisted of various small states, with Chichimec people forming petty kingdoms along the Valley of Mexico. One site was Tenayuca. (Ref. 10, 11, 12, 13)

SOUTH AMERICA

The greatest activity of the 12th century in South America continued to be in the region of northern Peru and what is now Ecuador. By mid-century the Chimus, in their great kingdom of Chimor, had revived the old Moche Kingdom, in a political and geographic sense. They were great builders and extended the old Moche irrigation and road systems. Their black pottery, however, was in contrast to the vigorous polychromatic Mochica pieces. Gold was apparently plentiful and was used chiefly in the pure state, although sometimes alloyed with silver or copper. Fantastic, intricate and delicate golden objects of the Chimu were found in 1937 in the area of Lambayeque, Peru, near the Ecuador border. The population of the nation may have been 250,000 and Chan Chan, the capital, covered 3 1/2 square miles. Ca jamarquilla and Pachacamac were additional large cities, each larger than Rome or Alexandria.

Five or six hundred miles south of the Chimu the Chincha Basin was also being rejuvenated on a large scale, with cultivated land extending over about 12 miles on the formerly sterile sea coast terraces. Some 37,000 acres of land of the Canete Basin were now utilized and this was accomplished by construction of lateral canals 24 to 36 miles long. The Ica and Nazca basins remained quiet. (Ref. 14)

According to Inca myth it was in this century that Manco Capac and his sister-wife, Mana Ocllo, left the Island of the Sun in Lake

Titicaca and went forth as son and daughter of the Sun God, Inti, to found the Inca Empire, "The Kingdom of Gold". (Ref. 15)

The Diaguites remained in the Argentine Andes and, although dating is inconclusive, sometime in this approximate time-frame they practiced an advanced metallurgy, using copper ore pulverized on stone mortars and mixed with zinc, gold and silver. This was then melted in hearths, using the wind as bellows, and finally poured into molds. Gold was beaten into very thin sheets and used to decorate masks and jewelry by the reverse hammering technique. (Ref. 16)

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1. Aztlan is the source of the word "Aztec" and means "people of heron place".

America: A.D. 1201 to 1300

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

Runic inscriptions left by Norse explorers about A.D. 1300 have been found near Upernavik far up in Baffin Bay on the western Greenland coast. In addition, recent excavations in an old Thule Arctic Culture settlement still farther north, beyond the tip of Greenland on the Canadian Island of Skraeling, have revealed links of chain-mail, iron boat rivets, parts of barrel bottoms, pieces of oak (not native to that part of Canada) and European-style knife blades and spear points. All of this would indicate that the Viking Norse explored much farther north in America than previously believed, although at the moment one cannot say with certainty that these Norse artifacts were not carried north by Thule contacts made farther south. (Ref. 1)

The southern Greenland settlements were still very much Catholic and a crisis arose because of the absence of grain for bread and grapes for the sacraments. The local parish asked Rome for permission to substitute meat and beer, but Pope Gregorius personally insisted that at least bread be used. (Ref. 2)

No special information concerning the Inuit of the far northern climes and the Indian populations of central and western Canada during this 13th century has been located, and we assume that life continued in much the same fashion as noted in previous modules.

THE UNITED STATES

The Missouri River Valley Indians continued to farm in the Dakotas and the Mississippian Culture persevered with great ceremonial

centers at Cahokia, Moundville and Etowah. The latter was a large site in Georgia, dating from 1200 to 1700, which was a fortified farming village with three temple mounds and carved stone figures of men, some of which were 15 to 30 feet in height. The figures were portrayed in the sitting position, suggesting a Mexican influence. The largest of the mounds there was 70 feet high with 380 square feet of base and probably containing 4,000,000 cubic feet of earth. (Ref. 3, 4)

The Mesa Verde cliff dwellers began construction of a great masonry temple, sun oriented and containing kivas three walls thick. Recently, excavations in the Montezuma Valley near Cortez, Colorado, have indicated tremendous pueblo type buildings and kivas on level ground. Dr. Arthur Rohn has identified 103 kivas at Yellowjacket and more than 80 at Mud Springs. It may be that the real center of the Mesa Verde culture was not on the mesa, but in this valley where conditions were better for agriculture. All of these complexes reached their peaks in this 13th century, but by 1300 the entire region was abandoned for good. Some of the Anasazi moved south to confront the Mogollons in the mountains, some simply went north and joined their relatives who were the ancestors of present day Hopis and some went eastward across the continental divide to the Rio Grande, where they developed the final phase of their culture from south of Albuquerque to Taos - the modern Pueblo Indians. The movement included the Sinaguas, who went to the Verde River Valley and built clusters of masonry houses along the cliff sides of the high mesas, there. The reasons for the rather sudden dispersion of these people are still a mystery. Tree ring studies indicate severe drought between 1260 and 1300 and it is possible that crops withered and the inhabitants had to move to eat. Farther to the southwest most authorities would agree that the Hohokam Classic period continued deep in the Arizona desert, building up to a peak of activity in the next century. (Ref. 5, 6, 7, 8)

MEXICO AND CENTRAL AMERICA

Chichen Itza on the Yucatan peninsula was abandoned by the Toltecs sometime before 1224 but a sparse native population remained. Constant local wars of the next three centuries destroyed 4,000 years of civilization in this land. In north Mexico, the Aztecs

were one of the Nahua tribes of the Anahuac Valley, apparently having moved inland from their probable origin in the San Pedro River delta, and for centuries there were petty tribal wars in this area also, with sometimes one tribe prevailing and sometimes another. The Aztecs were not yet in power and they came south as refugees, picking up remnants of the Toltec civilization. The Aztec authority, Professor Miguel Leon-Portilla writes¹ that the only thing they brought with them was an indomitable will. (Ref. 9, 10, 11)

In Central America, proper, there was no quantum jump in cultural achievement in these pre-Columbian centuries. The archaeological Period VI continued in Costa Rica with the zenith reached in the lost-wax method of casting gold and *tumbaga* (a gold-copper alloy) pendants, particularly in the southern Diquis area. Similar cultures continued in Panama and other adjacent regions. In none of these countries did a State-centered society develop. (Ref. 13, 14)

SOUTH AMERICA

Legend has it that there were small Inca tribe chiefdoms in a remote upper Andean valley in this 13th century, but nothing is really known for certain about their origin.

Chan Chan (300 miles northwest of Lima) was the capital of the Chimu people and at this time it had 50,000 inhabitants and covered an area of 9 square miles, with a strictly rectangular layout. A canal system, including one over 50 miles long, supplied the city with water. The city has been well preserved because of the sand which later covered it and the lack of rain. The Andes were just now coming out of the past into modern times and their great irrigation systems played a key role. (Ref. 15, 16)

Araucanian and Diaguite communities continued in the south Andes and some of the latter people migrated from the eastern to the Pacific slopes, perhaps coming under some influence of a Peruvian successor society to the Nazca political system called the Ika- Chinchu chiefdom. The western Diaguites had a stratified society dominated by a warrior class and their decorations showed men wearing feather head-dresses and carrying spear throwers and long spears. (Ref. 17)

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America: A.D. 1301 to 1400

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

The Thule Inuit were exceptional arctic hunters, using a variety of harpoon heads of different shapes and sizes, depending upon the immediate game available. The harpoon heads were very similar to those found in the Bering Strait area, suggesting a direct connection. (Please also see adjacent modules).

By this time the Norsemen on the southwest coast of Greenland had founded some 280 farms, 2 Episcopal residences, some monasteries and 17 churches, maintaining contacts with Iceland by open boats and being taxed by the Vatican in Rome. It is of interest that the route from Norway or Great Britain, via the Shetlands, Faeroes, Iceland, Greenland and Baffin Island to Labrador and continental America has no ocean gap wider than the length of Lake Michigan. (Ref. 1, 2) In 1362 the Norwegian king, Magnus Ericson, sent an expedition west to look for some of his people of a previous voyage who had failed to reach their Greenland destination. It is possible that the would-be rescuers entered what would later be Hudson's Bay¹.

Regarding the Canadian Indians, please see previous modules.

THE UNITED STATES

There is an ancient church at Newport, Rhode Island, which Professor Fell (Ref. 4) says was built in this 14th century by Norsemen. He quotes the writings of an Italian explorer, Giovanni de Verrazana, who sailed in 1524 northward from Florida to Labrador to the effect that while sailing along the Narragansett

coast he was astonished to see a tall, stone-built "Norman villa". On going ashore he found friendly, civilized Indians, some with **fair skins**, but they could remember nothing of how the stone structure had been built. This "Norma villa" was undoubtedly the Round Tower of Newport, in which some claim that Norse runes have been inscribed. Others deny entirely the antiquity of this building.

There is little accurate history of the North American Indians at this time but probably the tribal differentiation had about reached the point which was to be glimpsed by the Europeans in the last of the next century. Recent excavations at the ancient village of Crow Creek in South Dakota have revealed some 500 skeletons of men, women and children of the Coalescent Culture, apparently massacred by other Indians. The lack of females in the 12 to 19 year old bracket and the absence of very young children probably indicates that this group was taken captive. The skeletons showed evidence of multiple diseases and injuries, with a total of some 1137 incidents of abnormality identified. Bone cancer was virtually non-existent and arthritis was rare, but the bones did show evidence of infection, vitamin and protein deficiencies. No one knows why this massacre occurred among these usually placid, farmer peoples nor why their culture seemed to disappear entirely about A.D. 1400. Perhaps occasional or chronic malnutrition was a factor; perhaps the Missouri flood plain and terraces became overpopulated; or perhaps an extended drought could have tipped the balance. (Ref. 5)

Recent research regarding a Mississippian Culture group called the "Dallas Society" of eastern Tennessee and northwestern Georgia has yielded much information about the life-styles of southeastern Indians of this and the next century. Three types of villages have been found, the largest probably originally containing 1,000 or more people, were located at key locations in the Tennessee River drainage and had multiple earthen mounds, fortifications and wattle-and-daub single room houses. The flat-topped earthen mounds served as substructures for civic or religious buildings. Intermediate-sized villages and small hamlets were located near fertile alluvial soils necessary for cultivation of corn, beans, squash and sunflowers. This agricultural diet was supplemented by deer and fish and wild plant foods, chiefly various nuts. (Ref. 6)

Excavations on Key Marco on the Gulf coast of Florida indicate that Indians living there between A.D. 1000 and 1500 lived in

thatch houses built on stilts and used spear-throwers and swords armed with sharks' teeth. They lived by hunting, fishing and gathering of shell-fish. They had some elaborate, wooden sculptures, which included animals, heads of deer, birds, etc. along with rush and bark matting, basketry and untempered pottery. (Ref. 7)

In the southwest United States, the Hohokam people built their most enduring monument, the four-story Casa Grande on the Gila River, about A.D. 1350. This was probably an elite residence, perhaps a storehouse and observatory. There were observation holes which could be used to identify the summer and winter solstices. It seems likely that their society had become very stratified, with high chiefs and lowly peasants. (Ref. 8) The transplanted Anasazi flourished in their new area in central New Mexico. By A.D. 1330 Arroyo Hondo Pueblo near Santa Fe had 1,500 people and similar pueblos developed all along the Rio Grande. (Ref. 9) Rooms, one on top of the other up to three stories, were carved into the cliff, and then other rooms of mud mortar and stone were built in front of these. The roof beams were supported by sockets carved into the cliff. Rock art and painted murals were common. An ingenious method of maintaining moisture in the field involved the spreading of gravel to reduce evaporation. Thousands of acres were so treated and these fields produce lush plant growth even today. Agricultural products were augmented by the raising of turkeys and trading with eastern tribes brought buffalo meat. (Ref. 10) The original pueblo people, however, from this time on were pretty well replaced by descendants of the invading Athapascan-speaking tribes such as the Apache, San Carlos, Tonto, Mescalero and the Navajo. (Ref. 11, 12, 13)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

In this 14th century the Gulf coast of Mexico was occupied by the Totanac people while inland, the Aztecs, a branch of the Nuhua, reached the shores of Lake Texcoco in 1325 and built an impregnable capital in the marshes of the lake and on an island, within the next ten years. This capital city, Tenochtitlan, soon had more than 150,000 people and was laid out on a grid plan covering more than 4.6 miles, much of this being reclaimed swamp land. Canals reached all parts of the city and five causeways linked it to

the main- land. This area is now a part of Mexico City. Of incidental interest is the fact that these Indians raised a special hairless breed of dog, a larger ancestor of the Chihuahua, for food.

The Aztec medical profession had an hereditary character and healers were divided into specialties, such as the "tictl", who used magic and some anatomical knowledge and the properties of plants and minerals. Others were teeth pullers, bone setters, etc. At Mayapan in the Yucatan there was somewhat of a Maya renaissance, founded by colonists from Chichen Itza. (Ref. [14](#), [15](#), [16](#))

Up to this time in this outline, we have had little or nothing to say about the Caribbean, when discussing Middle America. This is not to say that there were no people living on those islands, but simply that specific information has been meagre. It has been established, however, that Taino Indians, with ancestors in South America, were now spreading from Haiti out over Cuba, Jamaica and the Bahamas. These Arawak-speaking people pushed back or enslaved a more primitive tribe, the Siboney. They grew corn and yams, made cassava bread from yucca, spun and wove cotton and made ornamented, fine, brown pottery. Artificial flattening of infants' heads produced low foreheads in the adults. They used honey for sweetening and smoked cigars through their noses. The more southern islands, including Porto Rico, were inhabited by the cannibalistic Caribs. (Ref. [17](#))

SOUTH AMERICA

The Cuculis and Puerto Viejos, who lived along the lowlands of coastal Peru in this and the next century, used an ancient technique of digging wells that slowly filled over a 24 hour period, so that at the end of each day, a small sluice could be opened to let water into a network of canals leading into a man's garden. People of a hundred villages lived in this way in an area where today one cannot even find a lizard. Although the pottery of these people was poor, they had rich fabrics and some metal devices, including beam scales. Two Puerto Viejo villages have been unearthed, one at the southern tip of Chica, where the mountains enter the ocean and cut off the beach. The inhabitants had returned to the use of part underground houses, not previously used in this region for 3,000 years, although such structures had been found among the

Diaguities on the Argentine slopes of the Andes. The Puerto Viejo built temples and palaces, too. One of these had a base of some 3,600 square yards and was built on a cliff. Some 3,000 acres of land were used for agriculture, chiefly for corn. (Ref. 18)

Legends state that the Incas already had a flourishing capital at Cuzco in this century, but certainly it could not compare with the great urban site of Chan Chan, capital of the Chimu Empire existing on the desert north coast, in this and adjacent centuries. No one knows exactly when Chan Chan was built on the threshold of the modern city of Trujillo. The Chimus dominated some 12 coastal valleys and a territory of some 125,000 arable acres. They apparently did not impose their rule beyond the boundaries of the Sechura Desert in the north. The use of supplementary and more stable water resources may have been the factor that favored the setting up of this kingdom, as the area is actually an oasis, extended by irrigation canals. Early Chimu art depicted many bird-men with long, hooked beaks. As on Easter Island, these men were frequently depicted navigating reed vessels. Except that the Chimu were urban dwellers with highly organized military and social systems, little was reported about them until very recently. A possible clue as to the origin of these people is in the report of Father Miguel Cabello de Balboa who interviewed Peruvians in the 16th century. The natives said that in "ancient times" a large group of families left the place of the Mochicas with a great fleet of "Balsas" (rafts) and sailed north to establish the Chimu Dynasty and culture. (Ref. 19, 20, 21)

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1. This statement is taken from Trager (Ref. 3), but as with all of his items, no reference is made as to the source of the information

America: A.D. 1401 to 1500

AMERICA

NORTH AMERICA

CANADA AND THE FAR NORTH

The last recorded voyage from Iceland to Greenland was in 1410. The worsening climate had reduced productivity of Greenland livestock and there was increasing navigational hazards from drift ice. Nevertheless, in 1432 a treaty had been reached between the Norwegian and English kings in an effort to stop English pirates from roving the Davis Strait and a papal letter of 1448 condemned these English pirates. All Greenland settlements were apparently abandoned by about 1500.

In the arctic there were Thule Eskimos and Aleuts and in the subarctic regions there were many Indian tribes, including Kutchin, Kaska, Chipewyan and Cree. There seems no doubt that the Thule people, previously described as inhabiting northern Canada and Greenland from at least A.D. 1000 onward, were the direct ancestors of today's Polar Eskimos, who live on Greenland's northwest coast. The Thule, like the Dorset before them, were artists of ivory carving, both for implements and decorative pendants. Although they apparently originally had pottery when they lived primarily in Alaska, their northeastern Canadian areas had a scarcity of clay and firewood, so they carved vessels out of soapstone for seal-blubber lamps, over which they boiled their meat or fish. At the end of this century large scale fishing enterprises began on the Newfoundland banks, where the warm waters of the Gulf Stream meet the colder arctic currents and the cod survive in amazing numbers. Basques, French, Dutch and English all scuffled for dominance, with the Spanish Basques finally being driven out.

(Ref. 1) In 1497 Giovanni Cabato, a Genoese sailing under the British Union Jack and the anglicized name of John Cabot re-discovered Newfoundland and Nova Scotia for England. Three years later Corte-Real of Portugal explored the coast of Labrador. (Ref. 2) On the Canadian Pacific coast there were the Tlingit tribes and on the Great Plains were Blackfoot, Ojibwa, Ottawa, Huron and Micmac. The United States Apache are related to the Canadian Athapascan tribes, some of whom migrated to reach the southwest (Arizona) in this 15th century. By the 1490s there were about 200,000 Indians spread over much of Canada. (Ref. 3, 4, 5)

THE UNITED STATES

To supplement the remarks made in the paragraph above, in North America as a whole there were, in this century, about 1,000,000 Indians, with about 500 different languages. In northeastern United States there were Pottowatomie, Susquehannock, Iroquois, Erie, Miami, Illinois and Shawnee. In the southeast were Chickasaw, Cherokee, Creek, Choctaw, Natchez and others. In the far west were the Nes Perce, the California tribes of Pima, Yokuts, Chumash, Cochimi and then inland the Shoshone, Utes, Apache and in the central plains the Sioux, Cheyenne, Kiowa, Wichita, Comanche and many others. (Ref. 6, 7)

Regarding the Indians of the Great Plains, the Huff archeological site, some 20 miles south of Bismarck, N.D., shows a remarkable village built by the ancestors of the Mandan tribe and occupied from 1400 to 1600. House lodges still number more than 100 and the Missouri River has been cutting away an untold number by eroding the bluff on which the houses rest. These structures averaged 38 feet by 30 feet, supported by central posts. The walls were of wattle and daub and the roofs perhaps of sod. There is evidence of both horticulture and bison hunting. (Ref. 8)

The Mississippian Culture, which has been discussed in previous chapters, reached its climax about A.D. 1500, with the unique southern cult which included pyramids grouped around a central square or plaza with a wood, wattle and daub and thatch temple on its summit. These had a strong suggestion of influence from Mesoamerica. One of the most notable temple sites was Cahokia, at St. Louis, where groupings of pyramids and burial mounds cover several square miles. The largest is 104 feet high and covers 16 acres.

Bizarre articles of copper, shell, stone, wood and clay in some mounds in the south show a preoccupation with violence and death. Apparently southern Indians had kept captive slaves for centuries. For example: when the Whites arrived in the next century, the Lower Creeks had Yamasee slaves. The standard beverage in Mississippian times was the "black drink", usually made from parched leaves of the yaupon, a type of holly. (Ref. 9, 10)

In the southwest something happened to the Hohokams about A.D. 1450 and their climb toward civilization rather abruptly ceased and their society collapsed, cause unknown. Their descendants are probably the unassuming Pima, living in modest pithouse villages, much like their ancestors did a thousand years before. (Ref. 11) Pueblo Indians remained scattered across the southwest, but chiefly in the Albuquerque, Sante Fe, Taos area. Kiva walls in the great 1,000 room complex at Kuaua, north of Albuquerque, had 85 coats of plaster, with paintings of spirit dancers invoking rain and other blessings. (Ref. 12)

Designs similar to, but smaller than the famous giant, ground drawings near Nazca, Peru, have been found near Blythe, California overlooking the Colorado River. These are judged to date to this 15th century, are of human and animal forms and have been extensively photographed by archeologist Jay von Werlhof and photographer Harry Casey over a several year period. One 75 foot tall, human effigy resembles the broad-shouldered figures of Navaho sand paintings. Another human caricature is 170 feet high and may represent Ha-ak, a mythical creature, who ate children. (Ref. 13)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

A number of city-states had arisen as heirs of the Mexican Toltec priest-state, including the Totonac, Mixtec, Zapotec, Maya and then the Circun-Caribbean groups. One of these, Tenochtitlan, along with two lesser cities gained military predominance and held a loose power over most of central Mexico. After A.D. 1431, under the chieftains Itzcoatl and Moctzuma I, the Aztecs of Tenochtitlan mastered the other tribes of the valley and then crossed the mountains and dominated southern Mexico, as well. These Aztecs attained a high degree of development in engineering, architecture, art, mathematics and astronomy, whether through their own

endeavors completely or through adoption of culture from pre-existing societies. Picture writing, rapidly approaching phonetics, was developed and agriculture, gold and silver workings, pottery and textiles were advanced. Moctezuma I and Nezahualcoyotl, king of Texcoco, an allied city-state, built a 9 mile long dam in Lake Texcoco, to separate salt water from fresh. Aztec aquaculture harvested spirulina, a high protein algae, carried as rations by warriors. It is still exported to Japan as a condiment, in the amount of 700 tons a year. The Aztec language was Nahuatl and 1,200,000 Mexicans still speak it today. Such world words as "chocolate", "tomato", "tamale" and "chili" have come directly from this source. (Ref. 14)

It is well known that the Aztecs used human sacrifices as a part of their religious activities, in the form of ceremonial cannibalism. Tenochtitlan priests ripped open chests of living victims with flint knives, tore out still beating hearts and ate them. The heads were hung on racks (perhaps the brains were eaten also) and the remainders of the bodies were tumbled down the steep-sided temple steps for the populace to eat. At times one thigh was given to the Supreme Council and other choice cuts to other nobles and then the remainders given to the victim's captor, who took it home and had it cooked into a maize and man stew, to be eaten by all the family. (Ref. 15) A subsidiary nation, Tlaxcalan, may have been preserved simply as a "stockyard" to supply human meat for Aztec raiders¹. One possible explanation for the cannibalism, according to Michail Harner², is that human flesh was the only source of some essential amino-acids needed by man. He explains that there were few or no domesticable herbivores in pre-Columbian Mexico and the poor could neither import game nor get the needed combinations of amino acids in their limited diets, so that cannibalism became their salvation. This is not accepted by the majority of Aztec specialists. (Ref. 16) Some have estimated that 250,000 people were sacrificed each year (Ref. 17), although other authorities say that on the eve of the Spanish conquest, there were only about 50,000 human victims a year. (Ref. 18) Still another estimate has been given by Bart McDowell (Ref. 19), who wrote that after the great Tenochtitlan was dedicated in 1487 between 10,600 and 70,400, depending on the source, were sacrificed with the ritual killings continuing without pause from sun-up to sun-down, four at a time, for four days. At least on some occasions, once captives were killed

their bodies were flayed and the skin worn by priests for 20 days. Multiple pictures drawn by Aztec artists, under Spanish supervision, show these skin enrobed priests. (Ref. 20)

Mexican writers tend to indicate that the cannibalism was entirely a religious rite, re-enacting a mythical battle between the God Huitzilopochtli and his sorceress sister, Coyaxauhqui, whom he dismembered. (Ref. 22) Anawalt (Ref. 23) writes that as children of the sun the Aztecs felt a heavy responsibility to keep the sun (representing Huitzilopochtli in his daily battle) strong, by giving it the most sacred of all foods - human blood. The most common blood offerings were from auto-sacrifice from every man, woman and child, from ear lobes, tongues, extremities, chest or genitals. Human sacrifice, however, was the most holy rite and took place on one or more days of each of the 18 months in the Aztec year. Most of these were captives or specially selected and prepared individuals.

The Aztecs did not have the wheel, but they had an intensive agriculture and probably some 12,000,000 peasants were expected to grow a surplus of some 20,000 tons of food for the city and its trading network. They had inherited techniques for quarrying and moving large blocks of stone, as manifested in their so-called calendar stone, a basalt disk 3.6 meters in diameter, 72 centimeters thick and weighing 24 metric tons. It was quarried with stone hammers and chisels, with wooden wedges inserted into cleavage planes. (Ref. 24, 25)

On the Goodman-Martinez-Thompson correlation dating system used by the National Geographic Society, the Aztecs did not turn on their previous superiors, the Tepehecs, until 1428 and then by 1519 had a tribute empire that covered most of central Mexico and stretched as far as Guatemala. The other dating correlation system is the "Spinden", which makes all Central American dates about 260 years earlier. The problem is not with relative dates in the American scene, which are consistent by the old Mayan calendars, but with relating these to the Christian calendar. A discovery in Vera Cruz in 1972 seems to confirm the former method to be the most accurate. A map will be found under this same section in the next chapter, showing the progression of the Aztec state and its relationship to other Central and South American empires.

The exact population of Mexico before the arrival of the Spaniards is, of course, unknown. Some have given well thought-

out estimates as high as 25,000,000. But, as Braudel (Ref. 26) has pointed out, the Indian population of this 15th century suffered a demographic weakness because of the absence of substitute animal milk, a feature which necessitated breast feeding for 3 or 4 years, thus reducing the fertility. This was a factor in the failure of rapid revival of the Indian population after the devastating onslaught of the diseases and firearms of the Spaniards. Outside the Aztec area, Yucatan and the Mayan area of Guatemala were politically divided between petty, rival states. Yucatan continued to remain separate from Mexico until the time of the Mexican revolution.

No reader needs to be reminded that Christopher Columbus reached the Caribbean in 1492, claiming territory for his backer, the Spanish monarchy. All may not know, however, that he had previously sailed far down the coast of Africa and to Iceland and beyond in the north Atlantic, in earlier days. He certainly knew of the presence of Greenland and contrary to some reports, there never was any question about the earth being flat among the sailors of that time. The navigation problem originated, at least in part, from the fact that scientists of the day had accepted Marco Polo's location of Japan as being 1,500 miles off the China coast. This, added to Columbus' adoption of a markedly wrong diameter of the earth, resulted in his assurances throughout his western voyages that he had reached the Indies and was very near China and Japan. On each of his western trips, Columbus rode the Canary Current and the prevailing Atlantic trade-winds. (Ref. 27) On the first, he required 36 days from the Canary Islands to his Caribbean landfall. It is of interest that Curtis and Kathleen Saville made essentially the same trip in a rowboat in 1981 in 50 days. The return trip to Europe, however, cannot be made without going first north with the Gulf Stream, or with power. (Ref. 28, 29)

Columbus' misconception regarding the land he found is worth a little more detail. There are 360 degrees of longitude in the circumference of the earth and we know today that each degree is very close to 60 nautical miles, thus making the perimeter of the globe some 21,600 nautical miles. Eratosthenes, many centuries before Columbus, had estimated a degree of longitude at 59.5 miles, but Columbus accepted the calculations of a Moslem geographer, Alfragan, who postulated this figure at 56.667 Arabic miles. Columbus further misinterpreted this as the equivalent of 45 western, nautical miles thus making an error of 25%. This, plus his

erroneous placement of Japan from the writings of Marco Polo, resulted in great confusion. The Canary Islands are on the same latitude as the southern tip of Japan and that was his reason for leaving from that point. He was unaware, apparently, that it was the Canary Current at that latitude that really allowed him to make the crossing. The true air-line miles from the Canaries to Japan number about 10,600, but Columbus' calculations were that it should be only 2,400. (Ref. [30](#))

At any rate, the Genoese Columbus, whose Spanish name was Don Cristobal Colon, took off on his first cross-Atlantic voyage with the famous Nina, Pinta and Santa Maria vessels, leaving Spain for the Canaries on August 3, 1492. Rough water had made him take 6 days between Spain and those islands, where the warlike Guanches were only partially conquered but were gradually being reduced to slavery. We know something about his ships. The Nina, about 60 tons³ probably had a 6 feet draught, an overall length of 70 feet, a 23 feet beam and a hold depth amidships of about 9 feet. It was square rigged with a lanteen sail on the mizzen and was provisioned for a year. For the seamen, the chief foods were wine, olive oil and bread in the form of sea biscuits or hard tack. They had some fish, salted meat, legumes and garlic. They sailed by dead reckoning, which means estimating the speed of the ship and then calculating the-distance travelled. Columbus repeatedly tried some celestial navigation but he made bad errors and actually relied almost completely on dead reckoning, at which we was apparently a master. One could not really tell longitude at that time, because there was no reliable maritime clock. The compass was the only fairly dependable instrument and even its variations from the pole star tended to be confusing. Nevertheless, the first crossing was not difficult, running on the trade winds and with the Canary Current, with the best day's run being 174 nautical miles. Columbus landed on the island of San Salvador in the Bahamas. (Ref. [31](#))

The adventurers immediately encountered Taino Indians, speakers of what was later to be identified as an Arawak language. They used dugout boats, some carrying 40 to 45 men and they used hammocks for sleeping, a trick soon adopted by the Spanish seamen. Deeper on the island many of the Taino were kept captive for eating purposes by the cannibalistic Caribs. Taino boys were castrated and the girls were kept to raise babies, which the Caribs thought to be particularly tasty. (Ref. [32](#)) The Indians went essentially naked,

wearing a few trinkets of gold leaf. The latter, of course, greatly excited the Europeans and they sailed through the Bahamas to Hispaniola (Haiti) in pursuit of gold, as well as Japan and the Grand Khan of China. They decided Cuba was the Asiatic mainland and it was there that the Santa Maria went aground. By this time friction had developed among the ships' captains and Columbus and the skipper of the Pinta sailed her away, leaving Columbus with the Nina and the grounded Santa Maria. A fort was built on Cape Haitian Harbor and 39 men were left there while the Admiral and the Nina sailed on January 16, 1493 for Spain, going first north and then east. Again Columbus' attempts at celestial navigation were somewhat ludicrous, but with luck and dead reckoning he hit the Azores and finally, after some trouble with the Portuguese there, he went on to Lisbon in a storm. All thought that they had found Asiatic islands. (Ref. [33](#), [34](#))

The follow-up to the discovery voyage of Columbus is not so well known. Queen Isabella sent him back to the Indies in September of 1493, with 1,500 men in a fleet of 17 ships, with the declared prime object of conversion of the Indians to Christianity and a second object of establishing a trading colony, with Columbus as governor. The ships sailed through the smaller leeward islands to Porto Rico and finally to Haiti, where it was found that the men left there on the previous voyage were dead. The first battle with Indians took place on St. Croix Island on November 13th. Columbus was able to take some of these vicious, cannibalistic Caribs as prisoners and made them slaves. Then he explored southern Cuba, which he thought was part of China, and/or islands of Malay and then he went on to Jamaica. On this voyage he established another colony on Haiti, but his men, who had no women on their ships from Spain, raped, robbed and enslaved the Indians. Fray Buil, who had been sent as the Christian priest, participated in the Indian enslavement and Columbus, himself, eventually returned with some 500 Indians for the slave markets of Seville, when he got home again in the spring of 1496. Colonists who were left in the Caribbean built the city of Santo Domingo in 1496 or 1497, as the first American urban community. (Ref. [35](#), [36](#)) It has been estimated that the total population of Hispaniola (Haiti) in 1496 was 4,000,000, chiefly Indians, of course. (Ref. [37](#))

Since the Spanish royalty was not too happy with the paucity of gold and silver brought back from the New World after 2 trips,

Columbus had real difficulty in arranging his third. Finally in 1498 he sailed again, to land in Trinidad and Venezuela on the South American coast. Another fleet supposedly went directly to provision the colony on Santa Domingo. In Venezuela the men did find *guanin or tumbaga*, an alloy of gold, silver and copper, with the amount of gold varying from 9 to 89% and the copper from 11 to 74%. They also found more cannibalistic Caribs and big fighting-canoes, with cabins amidships, which may have been factors in making the Spaniards just miss an area of great pearl fisheries. Returning to Santo Domingo, Columbus found 160 of the European colony (20 to 30% of the total) ill with syphilis. The natives had been shamefully exploited, the provision fleet hadn't arrived and some mutineers had been hanged. Francisco de Bobadilla, who had been sent to the island by the Spanish monarchs as Chief Justice, blamed Columbus for the various problems, arrested him and had him returned to Spain in chains. The year was 1500.

This section would not be complete without further comment concerning the much debated question of the origin of syphilis. Morison (Ref. 38) states that there is abundant evidence of syphilis occurring in a mild, endemic form in the pre-Columbian American Indians, but it was not until after the arrival of Columbus' sailors that the disease became rampant on both continents. For whatever reason, the interaction of the European men and the Indians made the disease violent on both sides of the Atlantic.

SOUTH AMERICA (See map in the next module)

NORTHERN AND WESTERN SOUTH AMERICA

There were many different Indian peoples in this part of South America. Of the Andean groups the great Inca Empire was dominant, but there were also the northern Caribs, Caraja, Mundurcu and the Savana-Orinoco group, among others. Sometime in the era just before the dominance of the Incas, the Chimu kingdom deteriorated markedly, perhaps because their farmland had been over-irrigated and insufficiently drained and had become salinized. The lowlands of coastal Peru were, and are, saturated with salt and to be useful the land must be excellently drained and well flushed. Deforestation also resulted in a dessication so that the underground rivers, so important for the low lying savannahs, began to disappear. Today the ruins of Chan cover an area of 14

square miles, with 10 surviving walled compounds (fortresses) forming the heart of the city.

The Peruvian Incas subdued the coastal Chimu civilization early in the century, although as we have seen, it may already have been in decline. It was in the reigns of the 8th emperor, Viracocha, and his son Pachuciti and grandson Topa that the Incas expanded out of their original Cuzco region and soon had an empire 200 by 2,000 miles in area with a population of perhaps 10,000,000. Engel (Ref. 39) writes that only when Prince Pachacuti mounted the throne in A.D. 1438, does tradition become reliable and concomitant with provable fact. Everything prior to that is summed up in a bunch of names that may have very little true value. It is probable that in the time of Viracocha, the so-called empire was still restricted to the narrow Cuzco Valley, in an area of a few thousand acres, surrounded by hostile neighbors. The sudden blossoming and conquering of territory then matches that of Alexander the Great or of the great, ancient Persian kings. The word "Inca" does not imply a race; it belongs only to a dynasty and the system that dynasty imposed on a number of South American peoples. The entire imperial expansion lasted only 100 years, but due to the deportation of conquered peoples and the planting of garrisons, the Incas made their Quechua language into the "lingua franca" of the Andes and it remains so today, even 4 centuries after the competing Spanish language appeared. (Ref. 40, 41)

There have been millions of words written about the Inca civilization. In this outline we can only hope to summarize some of the more important and interesting features. Inca governors subdivided the entire population into groups of 10 persons⁴ and were thus able to control activities of every farmer and craftsman. All the people lived in small villages, but there was a system of post and military roads and coastal navigation was well advanced. Agriculture was extensive, with a complex pattern of irrigation and terracing. Art, architecture and metal working were all well developed. They had a calendar and advanced surgical techniques. The famous royal highway of the Incas incorporated the earlier Moche roads into a 6,000 mile network, one road connecting Quito in the north to Cuzco in the center and eventually down to the Maule River in Chile. Another coast road ran absolutely straight for miles on end. These roads averaged 20 feet in width, were of ten paved with stone or cut through rock and many deep chasms were

bridged. Nothing in Europe compared to these roads from the time of the Romans until the era of Napoleon. (Ref. 42, 43)

The Incas had a number of effective plant medications, including quinine from cinchona bark for malaria, coca, containing cocaine for both tranquilizing and stimulation, as well as atropine, ipecacuana, curare, theophyllin and various mind-altering plants such as peyotl, teonancatl and ololiuqu. Surgery was usually a separate profession. Skulls were trepanned, but whether this was for medicinal, religious or other reasons is not known. (Ref. 44)

Inca-style jars, with black on cream decorations and lines forming grids are called *aryballoses* and are identical with some in a French museum made by north African Berbers. There appears to have been no local precursor to Inca pottery. Even at Cuzco, shards of Inca pottery lie above fragments of an entirely different, unrelated style. No pottery earlier than the Incas has been found either in Machu Picchu, Ollantaytambo or in Chinchero, where there were most imposing complexes. In other places, deep to the layers of Inca pottery, one finds the Killki type, which Engel (Ref. 46) states to be in no way related to the Incas'. To quote Engel directly concerning the Killki:

"The 'keros' or hardwood flaring vessels with flat bottoms and polychrome decorations, are supposedly associated with Inca times. There is an astonishing collection of them, and it is really regrettable- that almost nothing has been published regarding these archaeological treasures. The shape of the keros is clearly Tiahuanacoid, however, and the many-colored decorations ornamenting them indicate that many of them, if not all, belong to the period of protohistorical transition. Flowers, European costumes, or African faces are depicted on them. I do not think these keros constitute an element very typical of the final pre-Columbian period."⁵

A further confusing fact is that the Inca construction technique of using enormous polyhedral blocks without mortar appeared abruptly in this 15th century and the only comparable architecture is in far away Polynesia in the Marquesas Islands. One of the Inca cities, Ollantaytambo, has an adjacent terrace rising 300 feet high, with stairways too steep for horses to climb. On a crest above are enormous carved, monolithic slabs weighing over 100 tons each and there is no way of knowing whether these were raised there under the direction of the Tiahuanacos or the Incas. Their size and

the difficulty of emplacement rivals both Stonehenge and the temples of Egypt. (Ref. 48) By 1471 the Incas had pushed south into Chile and northern Argentina, while after 1493 the new emperor Huayna Capac concentrated on the north, founding Quito in modern Ecuador as a northern capital. His sons, however, fought bitter civil war, dividing the northern and southern parts of the empire.

Along the western frontier of what is now Argentina, lived the Chiriguano, a Guaranis tribe with Caribbean customs, who had settled in the lower Andes in prehistoric times. Finally they conquered all the lower Andes from the Bermejo River to Santa Cruz in the north. It is known historically that several tens of thousands of them made trips of over 600 miles and were a permanent menace to cities like Cuzco and Machu Picchu because of their penchant for the women, salt, wool and metal objects of those centers. Other tribes dotted the whole northern and western South American areas - the peaceable Arawaks, the Chiquitos, who used curare-poisoned arrows, the Mojos, the Yuracares, the Mosotenes and the Chiriguano and many more in far flung regions where they remain in a primitive state today. Some paid tribute to the Incas, some fought. (Ref. 49)

Much of the original capital city at Cuzco, on the eastern slope of the Peruvian Andes at just over 11,000 feet altitude, has been excavated, including the famed Inca Shrine and the Temple of the Sun, the walls of which were faced with gold plates. The Inca rulers were absolute despots, taking 2/3 of each conquered peasant's harvest. In the south both Pachacuti and Topa Yupanqui had difficult campaigns to subdue the Collas, which although desolate now, must have been one of the most densely populated areas of the Andes at that time. This opened the way to the eastern slopes and to Bolivia and from there Topa subdued the Diaguites of Chile, down to the edge of Araucanian territory. The area of Collas had huge stone storehouses and silos, each capable of containing tons of grain. By the end of the century the empire covered 37 degrees of latitude. (Ref. 50, 51)

EASTERN AND CENTRAL SOUTH AMERICA

There were as many and varied peoples in eastern South America as in the Andes. There were various forest groups and in the south the Puelche, Chiriguano and the Matagorda stone-age people. No one knows

for certain the date of arrival or the origin of the aborigines of Brazil, but many recognize what appears to be a common cradle in southeast Asia. The tropical Malays and the jungle Brazilians have a striking physical analogy and many common cultural elements, such as the poisonous blow pipe. Such jungle equipment could certainly not have survived the barren arctic tundra and very possibly indicates an involuntary passage along the Urdaneta (Japanese) Current and down the American coast, or even more reasonable, although unprovable, a migration of Malaysians across the Indian Ocean west to Madagascar, then to the tip of South Africa and then, riding the southern Atlantic current, to Brazil. (Ref. 52) Most of the eastern South American Indians, particularly those of Brazil, were cannibals, with the dominant tribes often fattening their victims like cattle before the kill. The victims' lard was collected in buckets and a portion of the meat was smoked and hung, as fish or other animal flesh is preserved.

Enemies appear to have been barbecued. In Tannahill's book *Food in History* (Ref. 53) on page 266 there is a gruesome picture depicting this, with the title, "*Comment les sauvages rotissent leurs ennemis.*"⁶ The picture shows an arm on a barbecue frame over a fire, a human body on the floor with the head just chopped off and another person apparently in the act of eviscerating this victim. Some children have a man's head and two men seem to be holding a human thigh in the background. At home these warrior-farmers lived in the nude, their bodies painted. Their houses had thatched roofs made of laths from long bamboos cut with a stone axe. They used bows, harpoons and boats. Manioc and corn were grown in clearings made by burning trees and they of ten had to move to be near fresh water.

The name "Brazil" was taken from the brazilwood trees found there. It seems probable that Portuguese fishermen knew of the existence, not only of the Azores, but also the coast of Brazil long before the time of Columbus and certain customs in both Brazilian and Argentinian Indians are compatible with an African connection, also. (Ref. 54) In 1500, the same year in which Columbus was taken back to Spain in chains from his third trip to the Caribbean, the Portuguese Admiral Pedro Alvares Cabral landed in Brazil.

Actually he had been headed for India via Cape of Good Hope from the Cape Verde Islands, with 13 caravels, when contrary winds had driven him westward. He took possession of Brazil in the name

of Manoel I, of Portugal. (Ref. 55)

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1. Anawalt (Ref. 21) says there is no proof of this concept. The vassal provinces did pay tribute, but probably not in humans for sacrifice.
2. As noted by James K. Page, Jr. in "Smithsonian" 8: 24-28, June, 1977. He referred to Harner's remarks in "Natural History", Vol. 86, No. 4.
3. In this instance the word "ton" as applied to the size of a ship has been taken from the Castilian *tonelada* and the Portuguese *tonel*, meaning a *tun* of wine, which is a large cask equivalent in volume to 2 pipes (hogsheads) or roughly equal to 40 cubic feet. This later became a unit of capacity for English vessels and has nothing to do with weight. (Ref. 32).
4. This is reminiscent of the organization of the Mongol armies.
5. This quotation is from Engel (Ref. 47), pages 206 and 207. The underlining is mine. All of this brings up the mysterious possibility of pre-Columbian European visits, again.
6. Tannahill reports that the picture was taken originally from *I a Cosmographie Universelle*, Vol. 2, Paris, 1,575.

America: A.D. 1501 to 1600

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

It was mentioned earlier in this chapter that this century has been called the "Little Ice Age" because of an overall drop in temperature. Although the Thule Arctic Culture was probably little affected, the arctic glacier now extended well down on Greenland, destroying the agricultural base there, which had helped to support neighboring Iceland. (Ref. 1)

Only 12 years after Columbus' first voyage to America, Breton fishermen were working the cod banks off Nova Scotia and soon were on the mainland, trading with the Indians for furs. Gaspar Corte-Real had discovered Newfoundland for Portugal and the French explorers Verrazano and Cartier initiated the "French Kingdoms of the North" to give needed revenues for the luxuries of the court of young Francois I. Giovanni de Verrazano (actually a Genoese) sailed all up the coast from Chesapeake Bay to the Strait of Belle Isle. Jacques Cartier followed in 1534, named the St. Lawrence River and then tried for a sea route to Asia, finding only auks, cod, herring, wolf fish, wapiti, elks, beaver and even a polar bear. Scurvy became rampant among his Frenchmen and the Hurons with whom they dealt. After that period for 50 years there were only trappers and traders, with trading posts at Quebec and Montreal. The name "Canada" is an Indian word meaning "village". (Ref. 2, 3, 4, 5)

THE UNITED STATES (See map on page 1009)

By 1600 there were probably 1,000,000 Indians, speaking some

2,000 languages, in the United States. (Ref. 6) New York state and the lower Great Lakes region were the lands of the Iroquois. Their village sites were built away from waterways and were sometimes fortified. They farmed maize and possibly beans and squash and hunted. Pottery was used for cooking and storing tobacco for their pipes. (Ref. 7) In 1845 settlers near Onandaga, not far from Lake Ontario, found a stone which was inscribed "Leo VI 1520" and this may indicate a Norse settlement proscribed by the then Pope Leo VI, some 14 years before the arrival of Jacques Cartier. (Ref. (Reference)) In 1584 Sir Walter Raleigh sent Amandes and Barlow to found a colony at Raleigh, Virginia, but it was subsequently lost, as were two following attempts in 1587 and 1589 by John White on Roanoke Island.

The century ended without even a trading post belonging to Britain in the New World. (Ref. 8)

Although there were the limited French and English efforts just mentioned, Spain owned America in this 16th century, as far as Europeans were concerned. After the Caribbean was ravaged by the dregs of Spanish civilization, as we shall note in the next section, it was the turn of the Gulf Coast of the United States. A first expedition, led by Ponce de Leon (who had been on Columbus' second trip), landed in Florida in 1513 claiming that region for Spain. In the 16th century "Florida" meant the entire area of present day Florida, Georgia, Virginia, Alabama, Mississippi and possibly more. Ponce may not have been the first Spaniard in Florida, as one early writer says that when- Ponce arrived at Charlotte Harbor on the Gulf side, a Spanish-speaking Indian greeted him. This native, however, may have escaped from a passing Spanish ship or come from the Antilles on his own.

Archeological and linguistic evidence discloses numerous pre-Columbian contacts between these two places. In spite of all the stories in children's histories about Ponce de Leon's trip to "find the fountain of youth", he really sailed to Florida to capture slaves and find precious metals, if available. He was authorized to make war on the Lucayhos aborigines, if necessary. Florida was erroneously regarded as just another island and the term Lucayos (or Bimini) frequently included Florida. On his first voyage, Ponce was not very successful, obtaining little more than a handful of Indians, some of whom he trained as interpreters, but when he returned in 1521 he opened war against the Caluysa and they killed him. (Ref. 9)

There were apparently many shipwrecks of European vessels along the southern coasts in the 16th century - some say 10,000 - and the Southeastern Ceremonial Complex of Indians began to use the silver coins and jewelry for their own pendants, gorgets and beads. All of this means that the Algonquians, Siouans, Muskogean and Iroquoians living by the ocean knew a great deal about the Europeans before they actually landed. In 1520 Lucas Vasquez de Ayllon commissioned Francisco Gordillo to sail to the northerly part of La Florida and he did so, going clear up to Chesapeake Bay, even making a short exploratory inland trip in the vicinity of Pawley's Island. After some other explorations by subordinates, Ayllon himself set forth in 1526 with 7 ships, 500 men, 100 women and Negroes, 89 horses and interpreters to settle in the region of the Cape Fear River or the Santee River. The enterprise did not prosper as one provision ship wrecked and sank and Ayllon died after an extended sickness. The remaining people relocated farther south near the future George- town, Carolina, where most died of disease, drowning or Indian warfare. A few remnants returned to Hispaniola. A little later Narvaez landed in the vicinity of Tampa Bay and detected gold among the natives' possessions. They claimed it had been obtained in Apalachee, a province in the north. Certainly there was gold in the Appalachian Mountains, but whether the Indians had mined it in truth or obtained the gold from shipwrecks or from Mexico, is not known. Narvaez searched for the source but was unsuccessful. – The only survivors of this expedition were Cabeza de Vaca, the black Moor slave, Esteban and a few others. The first two and one other wandered for 8 years across the southern United States, including Texas, Arizona and New Mexico to the area inhabited by the Pima Indians, finally reaching Mexico City. (Ref. [10](#), [11](#))

Leaving Spain in 1538, Hernando de Soto landed in the vicinity of present day Tampa Bay in 1539 following Narvaez' trail with 600 men and more than 200 horses. He went up the peninsula, wintered in Apalachee, then struck out northward to Cofitachiqui, west- ward to present day Alabama and across the Mississippi into Arkansas before finally dying and being buried in the Mississippi River. On his travels he visited the Queen of the powerful Coitachiqui Chiefdom, occupying a central position in present day South Carolina, and was impressed by the numerous houses, large mounds and the grand wooden mat-covered temple. The queen and her

court wore long pearl necklaces - those in her possession reputedly weighing all together some thousands of pounds. Her warriors had copper-tipped pikes, maces, battle axes and perhaps 50,000 bows and quivers. The Cofitachiqui language is unknown. Supposedly Cofitachique contained at least 500 houses, as did Caxa in Alabama and Ocale in Florida. All was not sweetness and light, however, as the Spanish say that an army of 10,000 Timucuans contested De Soto's trip through Florida and up to 7,000 warriors assaulted him in Mabila. But de Soto and his Spaniards brought small-pox, measles, tuberculosis, chicken-pox, scarlet fever, typhus, influenza, whooping cough and the common cold so that within a few decades the southeast became markedly depopulated and the economic and political structure of Mississippian life collapsed permanently. Furthermore, the Caluyas and the Cofitachiqui may already have been depleted and some settlements abandoned before De Soto arrived as a result of the migration of infected survivors from a great 1530 plague in Mexico City. (Ref. [12](#), [13](#)) Thus, before proceeding with a further description of the Spanish invasion, a few more words about the southeastern Indians prior to the advent of Spanish explorers seems advisable.

All southern Indians were essentially farmers and maize was the staff of life. Farming techniques had progressed far beyond any primitive slash and burn type of agriculture. The impression for years has been that the squaws did most of the work, but this is not correct. These Indians lived chiefly in towns and had their fields in the countryside. While women may have attended small garden plots, men did much of the work in the principal fields, clearing them, girdling large trees with stone axes and knives and fire, disposing of stumps, breaking the ground with hoes consisting of wooden handles with stone, conch shells or large animal bones at the ends. The maize was grown quite scientifically, planted at stated intervals in hills. As growth occurred, more dirt was piled up around the hill, keeping down weeds, trapping moisture and ensuring a higher yield. A Timucuan practice in Florida was to plant one crop of maize in the early spring and another in the summer on the same ground. It was also possible to grow dent, sweet, pop and other varieties of corn, which matured at different intervals. Although secondary in importance, hunting and gathering did occur. Deer were important, not only for food but for skins, and bears were hunted particularly for their oil, as well as fur and meat.

It is not known whether maize was brought up from Meso-America overland via Texas or by sea through the West Indies. (Ref. [14](#))

It was in the Virginia and Carolina Tidewater area where mixing of the northern hunting-oriented culture with the southern maize-agrarian civilization can best be documented. The Algonquians, originally spread over Canada, were late arrivals in the Tidewater, becoming in part, the Powhatan Confederacy in Virginia and Pamlico and Machapunga of eastern North Carolina. A feature conspicuously absent in the Tidewater was the temple platform mound. Other Algonquians were the Roanoke, Croatoan and Chowanoc. At the time of white contact there were powerful chiefdoms which might almost be called empires all over the south and southeast, including the Cofitachiqui, Powhatan, Natchez and Calyusa. When the Natchez Sun died, his subjects staged an elaborate funeral which included immolation of his wives. Nearer the east coast local natives had had extensive contact with Europeans for generation before Raleigh's Roanoke fiasco, some from Spanish land contact, such as with Ayllon and otherwise with ships either wrecked or coming ashore for provisions.

In spite of their early failures, Spain did not give up. Tristan de Luna took 1,500 men, women and black slaves to try 2 settlements, one at Pensacola and the other at Saint Elena (Port Royal). Lack of supplies, disease, internal bickering and native hostility again defeated the expectations. St. Augustine was founded by Menendez with more than 1,000 soldiers, farmers, artisans, their wives and Negroes in 1565. At first it was really a military base from which to attack the thousand or so French Huguenots, who had fortified Ft. Caroline just north on the St. Johns River. After these French were finally expelled, St. Augustine, with only a mediocre harbor and sandy, relatively unproductive soil, declined in significance. But from St. Elena, founded in South Carolina in about 1566 on the site of present day Parris Island Marine Corps base, soldiers and missionaries trekked into the interior, planting at least five garrisons in the Carolina back country and on the western side of the mountains. For 6 years a Father Sebastian Montero lived among the pagans, teaching them Spanish and the rudiments of Christianity. St. Elena existed for about 21 years and once had about 400 people in some 60 houses. (Ref. [15](#), [16](#))

St. Augustine was burned in 1586 by the English privateer, Sir Francis Drake and he also made an unsuccessful attempt to destroy

Santa Elena. He then stopped by Roanoke Island and picked up some of Raleigh's distressed soldiers. The few colonists who remained had either been killed or absorbed by the Indians, when a relief ship finally arrived in 1590.

The Indians bartered skins and furs with the whites. Chief Powhatan reportedly had 4,000 deerskins in a single wardrobe. But the whites took many of the natives captives – Ayllon and DeSoto counting their take in the hundreds. (Ref. 17)

In the southwest, Texas had been claimed for Spain by Alvarez de Pineda in 1519 and by the 1520s large quantities of horses, cattle and sheep had been brought into New Mexico. In the area of that state and Arizona, there were at that time about 40,000 Pueblo Indians. At about the same time that De Soto landed in Florida, Francisco Vasquez de Coronado had Friar Fray Marcos start north from Mexico on an exploration of what is now New Mexico. He used Esteban, the Moor who had wandered previously from Florida to New Spain, as a guide. Esteban's black color was accepted as a novelty by the Indians and some even thought he was a god. In the following year Coronado himself led an expedition searching for the "Seven Cities of Gold", reaching just south of Sante Fe and then back into the Texas Panhandle and on to the region of Independence, Kansas and the Nebraska border. He had 250 horsemen, 70 Spanish soldiers, 1,000 friendly Mexican Indians, baggage animals, sheep, goats and a train of priests. Others of the original party went around the north end of the Gulf of California and followed the Colorado River up to the Grand Canyon. On his way back to Mexico Coronado viciously attacked the Acoma Indian city about 40 miles west of present day Albuquerque, in spite of the pope's edict about humane treatment of the Indians, and in 3 days and nights the Spanish killed 600

Acomas and imprisoned and enslaved that many more. But Spaniards fell, too, and Coronado returned with only 1/3 of his original 300 plus white men. That Acoma pueblo, originally built by Kersan Indians on top of a rock mesa with edifices 3 stories high, was already ancient and may have been the oldest inhabited site in the United States. In spite of that bloody fight, those Acomas were converted to Christianity some 30 years later by a barefoot and unarmed Franciscan priest, Father Ramirez. (Ref. 19, 20, 21, 22)

Beginning in 1596 Juan de Onate took an expedition from Mexico City to El Paso and then to Sante Fe and on to Quivera,

Kansas and then returned via California, at the top of the Gulf. This was followed in 1598 by the arrival in the New Mexico area by 400 Spanish men, women and children with their 80 wagons and 7,000 head of live stock. Some 3,000 sheep were included. (Ref. 23, 24) In the far west an Englishman did upstage the Spaniards, as Sir Francis Drake anchored in 1579 just north of San Francisco Bay, claiming the land for his queen, calling it Nova Albion (New England). (Ref. 25)²

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

In 1513 Nunez de Balboa crossed the Isthmus of Panama and became the first known European to view the Pacific Ocean. Although by the end of the 15th century the Aztec Empire had passed its zenith, in 1519 there were still 60,000 households in Tenochtitlan and the population of the empire has been estimated to have been about 5,000,000 with 25,000,000 to 30,000,000 overall in Mexico. Both Mexico and Peru (as we shall see later) were very densely settled. The two American foods - maize and potatoes - were higher in caloric value than any old world crops except rice and this allowed a denser population per square mile than anywhere outside the East Asian rice-paddy region. Maize alone leads to niacin deficiency and the disease, pellagra, but middle American Indians soaked maize in a lime solution that broke down the molecules to make "hominy grits" and allowed human digestion to synthesize the needed vitamin. In some areas the native tomatoes were cultivated and eaten also and this further supplied the otherwise missing vitamins. It is of interest that in the New World, pellagra became known as "Columbus' sickness". But even before the Spaniards came, soil erosion in Mexico was already becoming a problem.

The Aztecs ate chiefly tortillas. Beans supplied some protein, the tomato (originally a weed in the maize fields) supplied vitamins A and C. They occasionally had wild game and raised small dogs for eating. This dog and the turkey were their only domesticated livestock. They also ate tadpoles, water flies' larvae, white worms, frogs, fresh water shrimp, newts, winged ants, agave worms (Maguey slug) and the iguana. We have mentioned in the last chapter that they were also somewhat prone to eat human flesh. Throughout the Caribbean people ate large, fat spiders and plump

insects from decaying wood. Manioc was a Cuban poisonous plant, but properly prepared it was edible. The roots were peeled and grated and the juice squeezed out and subsequently boiled to make a harmless sauce, with the residual sediment making tapioca. The pulp was sieved and shaped into flat cakes, cooked slowly to make a soft, flexible bread called "cassava". When dried, it could be kept 2 or 3 years. The manioc root, itself, although protein deficient, was not eaten by locusts and could be left in the earth as long as 2 years, without deteriorating. (Ref. 26)

NOTE: Insert Map 56. The Aztec, Maya and Inca Empires

Columbus and those who followed started a great exchange of foods. From Europe to the New World came wheat, chick-peas, sugarcane, some vegetables and cows. Back to Europe went maize (soon a staple in northern Spain, Portugal and Italy), potatoes (a source of vitamin C), chocolate, peanuts, vanilla, tomatoes, pineapples, lima beans, scarlet runner, red peppers, green peppers, tapioca and the turkey. (Ref. 27) In Mexico the climate favored the growth of many medicinal plants which were used by Aztec doctors. Among these were narcotics, medications for abortion, diarrhea, skin diseases and fever. It is interesting that the Spanish soldiers, after their arrival, of ten preferred the Aztec physicians to their European educated ones and in the latter part of the century Philip II sent one of his physicians, Francisco Hernandez, to Mexico to study native medicine and make a catalog of medicinal plants. (Ref. 28) We insert parenthetically the fact that the great majority of the Spanish troops were simple men, merely fleeing the poverty of Europe. No important Spanish family took any interest financially, militarily or intellectually in the conquest of the Americas. (Ref. 29)

Every school child knows how the Aztecs, under King Montezuma, were brutally conquered by Hernando Cortez and his handful of Spanish soldiers, in 1521. What is not always realized is that initially the Indians of Mexico welcomed the white, bearded strangers and it is thought by some that the Europeans were considered to be gods, returning as prophesied in some of their ancient legends. At any rate, Cortez landed his ships in the Vera Cruz area, where there were both Huastecs, who spoke a dialect of

Maya and the Totonacs, who were vassals of the Aztecs. The former were famous for unusual stone sculptures and may have invented Quetzalcoatl, who became a primary god of the entire region. When Cortez decided to attack the Aztecs after 5 months of reconnoitering, the rebellious Totonacs joined him. (Ref. 30, 31, 32) The numerous Christian friars and priests, who had accompanied Cortez, learning of the Aztec human sacrifices, were adamant in the necessity to chastise and then baptize the heathen Indians. With his Indian mercenaries, picked up along the way, Cortez marched inland toward the capital city. A relief expedition from Hispaniola in 1520 brought small-pox which spread ahead of the Spaniards through the Indian population. It was thus that the disease was raging in Tenochtitlan when Montezuma was killed by his own rivals, who did not want to surrender to the Spaniards. The new leader and many of his followers died within hours of the small-pox, which spread even to Guatemala in the same year. (Ref. 33). Mc Neill (Ref. 34) confirms that smallpox and measles, brought by Europeans, killed millions of native Americans and had more to do with the collapse of the Aztec power than merely military operations. The population of Mexico dropped from a probable 25,000,000 to 30,000,000 to 3 million by 1568. (Ref. 35)

Of course the Aztecs and the immediately adjacent tribes were not the only native inhabitants of Mexico. In the far south Chol-speaking Maya Indians hunted the Chiapas jungle with bows and arrows and incidentally probably encountered many of the old abandoned stone cities of their classic ancestors. The Spanish practically annihilated those people, however, leaving the Chiapas rain-forest essentially vacant. (Ref. 36)

Within two decades of their first landing in Mexico, the relatively few Spaniards had explored the New World from the Atlantic to the Pacific and from Kansas to Argentina. Is there any reason to think that previous sailors landing on the Gulf end of the Canary current could not have done the same? (See Chapter 5). The old Mayan Culture had long gone, but some of the remains were found in Yucatan as early as 1517 by Hernando de Cordova, whose landing party at Cape Cotoche was ambushed by Indians. He was attacked again in Champoton where 62 men were killed and many wounded, so that one ship had to be abandoned because of shortage of crew. In 1526 Don Francisco de Montego was given license to conquer and people the "islands" of Yucatan and Cozumel and to take or buy

Indians as slaves. In one battle in this hot, dry land, 1,200 Indians were slaughtered and at Chichen Itza a second great battle resulted in the loss of 150 Spaniards and the wounding of almost all the rest. By 1535, not a single Spaniard remained in Yucatan. When some returned in 1537, many were sacrificed and eaten, but eventually in 1540 the Spanish town of San Francisco de Campeche was founded. (Ref. 37) Perhaps some of these Indians were descendants of the ancient Maya, Yucatec-speaking families, using bows and arrows, were living in the rain forests of Guatemala at that time. (Ref. 38)

Year by year the map of the New World was charted in gold, silver and blood. Quickly the Spaniards superimposed their own civilization and by 1539 there was a printing press and by 1551 a university in Mexico City. By mid-century some 20,000 Negroes had been brought to Cuernavaca and Vera Cruz. There were productive silver mines in Mexico by the 1540s. Thomas (Ref. 39) says that while the Spaniards conquered Central and South America on horses, mules sustained the conquest. Convoys carrying gold and silver and linking Lima, Cuzco, Panama, Vera Cruz and Mexico were established with these valuable animals. The great harbor at Porto Bello, Panama, became the most thriving town in the Americas as the Atlantic terminal of the mule track across the isthmus carrying the Spaniards' treasure from South America. (Ref. 40, 41, 42, 43)¹

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Lempira was a great Indian leader, who fought against the Spanish conquest for two years in Honduras, beginning in 1537. Trujillo, on the Honduras Caribbean coast, was an early Spanish stronghold, with a massive brick fortress with the cannon pointed seaward. (Ref. 44)

Some of the relative values of things in Central America may be seen in Braudel's (Ref. 45) comments about Panama in 1519. A horse was worth 24 1/2 pesos, an Indian slave 30 pesos and a skin of wine 100 pesos. Pedro de Alvarado, who had become governor of Guatemala, heard of rich lands in Peru and led an expedition of 500 men to Quito in 1534, by boat. It is probably an indication of the long time, extensive maritime experience of the people of that area that Alvarado's Indian navigator carried him directly from the Port of Iztopa (near present San Jose, Guatemala) to the Bay of Manta in

Ecuador. That was a trip across open ocean of about 1,300 miles, minimum. Land travel, however, would have been at least 1,900 miles, not considering the ups and downs in the mountains, lake detours and the like through mountainous jungles that were actually probably almost impassable. (Ref. 46)

The situation in the Caribbean Basin in this century deserves further discussion. By 1501 Spanish settlers in Hispaniola (Santa Domingo) had already introduced black slaves, the first in the New World. While Columbus was kept in the Spanish court, still under the cloud from his 3rd voyage, Amerigo Vespucci returned from the west Atlantic, proclaiming that there was an entire continent there, a fact which resulted eventually in its being named after him. Columbus was finally allowed a 4th trip, although refused permission to visit his old Santo Domingo domain. He had 150 men in 4 ships and they made the Atlantic crossing on the trade winds, landing on an island just south of Dominica in 21 days³. About 2 weeks later he sent a warning to a large Spanish fleet carrying gold that they should not leave the port of Santo Domingo because of an approaching hurricane. The fleet commander laughed at the warning and started for Spain, only to have his flagship go down and his fleet scattered by the storm. 200,000 castellanos of gold went to the bottom of the Gulf. Columbus' squadron, anchored in a protected area, escaped damage the first night, but did receive some battering the next day.

Columbus initiated further explorations among the Caribbean islands. At Bonacca he intercepted natives in a large, 8 feet wide dugout canoe, carrying 25 men and numerous women and children - all wearing dyed cotton coverings and shirts. The women had colored shawls and the men carried long, flint-edged, wooden swords and copper hatchets. It has since become obvious that these Indians were trading between Bonacca and Honduras. The fleet went on to the mainland, anchoring in a harbor where later the city of Trujillo, Honduras was to be founded and there encountered the Jicaque Indians, dressed as those he had seen in the canoe. This was apparently the remnant of a Mayan Honduran kingdom.

The fleet then sailed south along the coast of Central America, encountering terrible storms, with Columbus quite ill and eventually they passed present day Nicaragua and Costa Rica, where they anchored and traded some with the Talamanca Indians. The Spaniards were impressed with the local fauna, which included

deer, pumas and wild turkey. On farther south in Panama they encountered Guaymies Indians, who painted their faces white, black and red and these men even had some real gold. The possibility of mines in that region enticed Columbus into starting a settlement there. When 10 or 12 houses had been built, it stopped raining and the river mouth, where the caravels had been anchored, dried up to the point where the ships were stranded. This was followed by savage Indian attacks which eventually resulted in the loss of 10 men and abandonment of the village. When the rains returned the little fleet took off again for Hispaniola, abandoning one ship, which had been afloat for a year. Two more vessels were leaking badly and when Jamaica was finally reached these were intentionally run aground for the remaining 116 men to use as houseboats, as they were no - longer seaworthy. Two dugout canoes were sent to Santo Domingo for help from Columbus' old enemy, Governor Ovando; half of the remaining men mutinied and tried to leave; the Jamaican Indians quit feeding the Spaniards and relented only when Columbus awed them by predicting the eclipse of the moon of February 29, 1504. The mutineers were finally defeated and- ultimately, after more than a year, all were rescued by a ship from Santo Domingo. Part of the rescued men stayed in the Caribbean to eventually help to settle Puerto Rico, while the others returned to Spain with Columbus. The old Spanish queen was dying and Columbus received no glory.

We have already noted the decimation provoked in the West Indies by small-pox in 1519. Some type of plague, perhaps typhus or influenza, hit the islands again in 1567 with some becoming completely depopulated. (Ref. 48) Early in the century the Spanish abducted the native Arawak Indians from the Bahamas for slave labor and those islands also remained uninhabited for more than a century. (Ref. 49) In addition, Spaniards transported somewhere in the range of 2,000 to 5,000 Indians from the United States to the West Indies. But the Cuban governor's report of 1530 showed that 1/3 of the island's natives died during the year and this was the excuse for the importation of African slaves. The viruses brought by these blacks helped to decimate the Indian natives. Both before and after Menendez founded St. Augustine, Florida Indians (particularly the Calyusas) had gone by canoe to Cuba either voluntarily or against their will, but in any case they died off as fast there as the native Cubans. Menendez married the daughter of Chief Carlos and

when she made a trip to Cuba with her court, most of them soon died. In 1570, about 100 years after the arrival of Europeans, the population of Hispaniola had been reduced to 125 people. By the end of the century blacks and whites, along with Indians imported from elsewhere in the New World, had replaced the aboriginal populace of the Greater Antilles.

We should note, that just as in the Pacific, ships were not able to go straight eastward across the Atlantic from the Caribbean, because of the prevailing winds and currents. Spanish ships first made a rendezvous at Havana, then sailed close by the Gulf Coast through the Bahama Channel in the Gulf Stream along the coast to the Carolinas, where westerly winds returned them to Spain. As previously noted, many were wrecked on the mainland coasts. (Ref. 50)

SOUTH AMERICA

NORTHERN AND WESTERN SOUTH AMERICA

The first South American contact of the Spaniards occurred in 1501 when the Bay of Santa Marta and the Gulf of Cartagena in Colombia were explored. According to the chroniclers the natives were then living on the seacoast on a 90 mile strip below an altitude of 3,300 feet, engaged in gold metallurgy. The Spanish called them the Chairamas, whence came the name of the Tairona society, which may mean a place where metal is melted. The actual mines may have been located farther west and the Chairamas may have obtained it from the Taumacos, who dominated the gold bearing regions. Nevertheless, the fighting between the coast Indians and the Spaniards was bloody and the latter never did really conquer the area, as the Taironas withdrew to the mountains where they finally disappeared, probably from disease and hunger. The ruins of their original settlements have been in part excavated and have revealed stone buildings reached by roads and paved stairways some of which were 60 feet wide and by bridges of stone blocks. There were rock carvings and farming terraces and artificial mounds, perhaps for ceremonial use.

In the next 25 years several Spanish towns were established along this northern coast of South America. In 1528 the Welsers of Augsburg even appeared in Venezuela, but Spanish ill-will and terrible local atrocities brought their financial enterprises to failure.

(Ref. [51](#), [52](#))

Before the days of the Spaniards some of the desert coast land of Peru was inhabited. Every 25 miles or so the desert is cut by a stream or river, which has created an oasis and made life possible. In the past some of these were the sites of very large cities, but during Hispanicization provincial life turned away to the central Andes and the coast remained practically bare. Like Mexico, parts of South America were densely settled at the time of European discovery. The Andean population was about 25,000,000 to 30,000,000. The people of Peru were mainly vegetarian, although there were some fish and occasionally communal game hunts for deer, llamas, guanacos, bears, pumas, foxes and vizcacha. Guinea pigs were raised in nearly every household along with ducks. The chief foods, however, were maize, potatoes, squash, beans, manioc and sweet potatoes, peanuts, tomatoes, avocados and chili peppers. Maize would not grow above 11,000 feet but potatoes and other tubers such as oca and guinoa, would. The potatoes were preserved by combined freezing and drying methods and the result was called "chunu", of greatest importance to highland People⁴ The slave workers of the silver mines of Potosi (now in south central Bolivia) subsisted almost entirely on chunu. That city was founded in 1545 at the altitude of 13,780 feet and by 1,600 had 100,000 people. Although the Spaniards spent most of their time looking for gold, silver was the real treasure of South America and soon the quicksilver mines of Huancavelica in Peru did not supply sufficient mercury for the amalgam processing in all the American silver mines and additional supplies had to be shipped from Spain and Yugoslavia. (Ref. [53](#))

Besides the empire of the Incas, South America had the Chimu Kingdom, with a capital at Chan Chan and then some less complex societies, called chiefdoms. Two types of the latter existed: (1) A militaristic society, with hereditary classes governed by war chiefs and with usually four classes; caciques or chiefs; people of rank; farmers; and slaves. (2) Theocratic societies under a shaman who officiated in a temple. War was necessary to maintain cannibal practices and to procure trophy heads, which were important symbols in the magic rituals of Chavin, Paracas, Nazca and Tiahuanaco religions. This rite disappeared in the Inca civilization, which seems to have taken over the area previously occupied by the Chimu princes. The explorer Pizarro does not even mention Chan

Chan, but those people left many cultural developments in the central Andes, including administrative organization, communications by road, agriculture, long canals allowing intensive farming and perhaps trade and navigation. Their princes dominated only a few valleys, however, and the Incas exerted a much greater influence on the region as a whole. (Ref. 55)

In the Peruvian coastal areas which had been irrigated, there was already considerable salting of the soil and the population was collapsing. In addition, the small-pox which the Spaniards had brought to Mexico and the West Indies had spread even faster than they did and it was ravaging Peru by 1525. The reigning Inca, Huayna Capac, died of the disease and civil war followed between his two sons. It was into this wreckage of an empire that in 1532 Francisco Pizarro arrived with 106 foot soldiers and 62 horses. As when the Europeans landed in Mexico, Pizarro was at first mistaken for a god, but late in the year he moved his troops inland and seized one of the warring Inca princes, Atahualpa, in the midst of his vast army at Cajamarca. Intimidated by the horses and the obvious firepower, the Indians put up no resistance, but the prince obtained his temporary release by paying the most fabulous ransom in history - a chamber 8 feet high filled with various objects of gold and jewelry along with 2 similar sized rooms filled with silver. After Pizarro had melted the metal down and distributed part of it among his men, he conveniently garroted Atahualpa on a false charge and appointed still another- royal brother, Tupac Hualpa, as the slain emperor's successor. He did not last long either and was succeeded by Manco. It is no wonder that relations between the two peoples steadily deteriorated so that by late 1535 the situation had become intolerable, from the Inca standpoint.

Manco escaped and assembled an army 100,000 strong to start a resistance to the Spaniards that was to last 36 years. The latter had now been reinforced and were strongly entrenched at Cuzco so that the Incas were unable to reclaim that city. Manco retreated to the juncture of the Andes and the Amazon basin and when pursued even there by a Spanish force, he retreated to Vitcos in the Vilcabamba River valley. Attacked again, he retreated once more while the spoils of Vitcos fell to the Spaniards, including some 20,000 prisoners and 50,000 head of llamas and alpacas. Hidden in the upper Vilcabamba, Manco recouped his forces, while in the meantime Pizarro had been murdered in his palace by some of his

own disgruntled soldiers. Some of these then ran and took refuge with Manco and his Incas, where they taught the Indians the Spanish fighting techniques and horseback riding. Later these same Spanish renegades turned on Manco and slew him (1544) leaving the resistance against the Spanish to be led by Manco's son, Sayri Tupac. Some years later Sayri was offered a pardon by the Spanish crown and early in 1558 he married his sister, Cusi Huaracay⁵. Actually Sayri was never really crowned and died of illness in 1560. All five of Atahualpa's daughters married high ranking Spaniards and the dynasty was eliminated. All of Pizarro's expeditionary forces eventually met disaster. In addition to his own assassination, his three brothers all met violent deaths in one fashion or another. His men either had their heads cut off by the king's executioners or died in brawls or in native battles. The first bishop of Cuzco, Vincente de Valverd, was eaten by the inhabitants of Puna Island, while trying to flee back to Spain. (Ref. 56)

In the meantime many other conquistadores were traveling all over the northern part of South America, looking for gold. In 1535 Sebastian de Balacazar, veteran of the Inca conquest and founder of Quito, was told of a king who sprinkled his body with gold dust before swimming in his sacred lake. The legend named the mysterious king "El Dorado - the Golden man" and it fanned the lust for the precious metal among all the Spanish explorers. Gonzalo Jimenez de Quesada led an expedition inland from Columbia's northern coast in 1536, struggling through forests and swamps. Decimated by fever, malaria and attacks by hostile natives, only 200 of his original 900 men reached the Chibcha villages that were strewn across Colombia's Cundinamarca plateau. He found no gold, but did found the city of Santa Fe de Bogota, now the capital of Colombia. Others explored this same country, including the German Nicolaus Federmann and his countryman Philip von Guttan. Spaniards, including Gonzalo Pizarro, brother of Francisco and Francisco de Orellana also headed to the interior and when the latter came down a great river he encountered a tribe whose long-haired women drew a bow better than any man. Orellana gave the name "Amazonas" to the river, after those warrior women of the old Greek legend. Toward the end of the century, the hunt for gold shifted toward Guiana and then to the island of Trinidad, where the Spanish met the English adventurer Sir Walter Raleigh, who was on a similar search. Eventually some gold was found between the years

1525 and 1533 in Colombia and as has been noted, Potosi in Bolivia became for 100 years the biggest source of silver in the world. (Ref. [58](#), [59](#), [60](#))

After conquering the Incas in Peru, the Spanish tried to extend down into Chile about 1536, but they were pretty well stopped by the cannibalistic Araucanian Indians. Pedro de Valdiva did reach far enough south to found the city of Santiago in Chile by 1541. There, eventually as elsewhere in South America, silver mines were found and worked by the natives under Spanish direction. Recent study of skeletons of colonial Indians who mined silver in Tarapaca, of northern Chile, has shown evidence of the occupational illness of pneumoconiosis and silicosis from silver mining. Little is known of the Araucanians who lived on the western slope of the Chilean cordillera and on Chiloe Island prior to the arrival of the Spaniards. There were at least three groups, each speaking a dialect of an exclusive South American language. Estimations of their number, when the Spaniards arrived, vary from 500,000 to 2,000,000. Peaceful relations with them were not really established until the 18th century, although they were farmers and not basically hunters. Only the Quechus and Aymaras tribes were city builders, while the Mapuches lived more agricultural lives. The tribes fought each other and captives were ritually tortured and sacrificed. Cannibalism was practiced. (Ref. [61](#), [62](#), [63](#))

A few last words are indicated before we leave the west coast of South America. In 1526 when Francisco Pizarro left the Panamanian isthmus on his second and most intensive voyage down the coast, he encountered Peruvian merchant rafts coming north – rafts as large as Pizarro's caravel. The first one was a 36 ton raft with 20 Indians, masts with cotton sails, well rigged. The secret of control lay with multiple center-boards (guaras) in line along the center of the vessels, the skillful use of which allowed steering and beating up-wind to some degree. Some of the larger vessels had thatched bamboo huts with 4 or 5 rooms. They often carried salt along with other provisions for the 200 to 300 hundred mile trips between ports. Dry balsa wood would be too water absorbent for these rafts, but green balsa, when put to sea still filled with sap, is very water resistant. The description of these vessels from the early Spaniards is indisputable evidence that the Peruvians were capable of extensive ocean travel. (Ref. [64](#))

EASTERN AND CENTRAL SOUTH AMERICA

Horses which had been introduced far to the west in Peru by Pizarro were, within a few years, to be found running in large, wild herds even in the pampas of eastern South America. Sugar cane reached Brazil in about 1520 and sugar mills were set up in about 1550, so that soon there appeared the eternal trinity - the master's house, the slaves cabins and the sugar mill. Still the master had to sell his product and it was European trade that commanded production and output in Brazil and elsewhere in the New World. (Ref. 65) As early as 1521 the Portuguese began building forts in Brazil, hoping to reach the legendary empire of gold from the east, across the Chaco. The Guaranis tribes, already used to pillaging the rich Incanized slopes of the eastern Andes, helped the Portuguese expeditions. When the Spaniard Martinez de Irala reached the upper Andes in 1548, that part of Peru and Bolivia were already under Portuguese control. But Asuncion, now in Paraguay, 600 miles inland from the Atlantic, had been settled in 1542 by the Spaniard de Vaca⁶. Farther south the Spaniards had constant skirmishes with the Diaguites, who now used bow and arrows, but who were soon wiped out by disease. According to one priest, the Diaguites practiced circumcision, which recalls our note on page 212 regarding Mochican pottery vessels depicting circumcised prisoners. South of the Diaguites but still east of the cordillera there was a small group, the Huarpes, who may have been related to the former, but were described as tall, thin, brown men with lots of hair. The Chacos lived on the savannahs farther east and much farther south lived the Comechingons, between about the 29th and 34th parallels. The first Europeans to see them described them ashaving beards and wearing long, wool tunics. The chroniclers added that the Comechingons could mobilize as many as 40,000 warriors, although Engel (Ref. 66) feels that this must be an exaggeration.

Bahia was founded as the administrative capital for the Portuguese in 1549 and between 1575 and 1600 coastal Brazil had become the foremost sugar producing territory in the western world, averaging 1,600 tons a year, shipped to Europe. Soon there were shops on the streets of Sao Paulo and after 1580 Portuguese middlemen invaded the whole of Spanish America as shopkeepers and peddlers. The natives were nomadic and not easily made into a labor force and tended to slip away as the Portuguese arrived, so slave ships

shuttled between Angola and Brazil, with payment given in Africa in low grade Brazilian tobacco. Then in half a century Paulist *bandeiras* spread out from Sao Paulo over half the continent from the Rio de la Plata to the Amazon and Andes in search of slaves, precious stones and gold. (Ref. 68) It has been estimated that by 1583 there were 25,000 whites, 18,000 civilized Indians and 14,000 Negro slaves in the territory. The towns of Brazil, which Braudel (Ref. 69) has described as so many miniature versions of Sparta or Thebes, were run by the men of property, the Spanish *cabildos*.

Argentina had been discovered even earlier in 1516 by the Spanish Juan Diaz de Solis and the coasts explored by Diego Garcia in 1526. Buenos Aires was founded in 1534 by Pedro de Mendoza but the village soon died out or was destroyed. When it was rebuilt in 1580 it was chiefly by Portuguese merchants. Their ships streamed west across the Atlantic laden with rice, fabrics, black slaves and perhaps some gold, would arrive at Buenos Aires, then go up the Rio de la Plata to Ascension, where they would trade for silver reals coming down the Pilcomayo River. (Ref. 70)

Magellan and 265 men rounded Cape Horn as early as 1520 on their famous globe circling trip, but it was about 1579 that Europeans came in contact with the natives of Patagonia. They were described as being light-skinned men with thick, bushy black, wiry hair, who smeared their bodies with red paint and grease. The Europeans attempted a colony there and brought sheep, which the Patagonians promptly hunted. Today there are no true Patagonians left.¹

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(Ref. 71) In the service of Spanish merchants, the Portuguese Sebastian Cabot reached the Rio de la Plata about 1530

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1. Late Anasazi people of the Acoma pueblo. (Ref. 18)
2. Juan de Cabrillo and Bartolome Ferrello had previously explored the west coast to Oregon
3. Trager (Ref. 47) has given a gross misstatement on page 161 to the effect that Columbus' 4th voyage took 8 months for the Atlantic crossing
4. It should be noted that because the Andes Indians had the custom of replanting the smaller potatoes and eating the larger ones, potatoes at that time were generally only peanut-sized. The large potato of today is the product of centuries of more enlightened horticulture. (Ref. 54)
5. As in ancient Egypt, this incestuous situation was the rule among the imperial family of Peru. (Ref. 57)
6. Other authorities state that the Spanish entered Paraguay in 1524, intermarrying with the Guarani and founding Asuncion in 1537. (Ref. 67)

America: A.D. 1601 to 1700

AMERICA

NORTH AMERICA (See map in next module)

In the early 17th century northern Europeans, already experienced in smuggling and raiding Spanish-American shipping, began to establish permanent colonies of their own in America. The north Europeans' advantages included their access to the sources of shipbuilding material (particularly around the Baltic), fewer political commitments and diversification of European interests and finally more sophisticated devices for obtaining capital and spreading risks - the chartered joint-stock company. (Ref. 1)

CANADA AND THE FAR NORTH

The Thule Arctic Culture, which has been discussed in several previous chapters, is generally conceded to have ended about 1700, merging into the Modern Eskimo Culture. Samuel Champlain was sent out to Canada from France in 1603 to map the known rivers. Establishing Quebec as a base, he explored Lakes Huron and Ontario and sided with the Algonquin and Huron Indians, while defeating the hostile Iroquois. The Jesuit priest, Pierre Francois Xavier de Charlevoix, who wrote a *Histoire de la Nouvelle France* in the 18th century, accumulated much information about the French-Iroquois war of 1610. He told of terrible atrocities committed by the Hurons on the Iroquois prisoners, including cannibalism¹. Champlain was the most versatile of colonial founders, a sailor, soldier, scholar and man of action, artist and explorer. (Ref. 2) The friendly Hurons became the middlemen for the fur trade between Montreal and the Indian trappers of the Great Lakes areas. Nova Scotia was founded as the French colony of Acadia in 1632. (Ref. 3)

At the death of Champlain in 1635 Canada was the property of a joint-stock company, the Hundred Associates. Settlement advanced very slowly, however, and by 1643, a year after a stronghold had been built at Montreal, there were not 300 Frenchmen in all New France, exclusive of Nova Scotia. Even by 1665 Quebec contained only 70 houses and 550 people. The French fur traders, however, soon carried their commerce 2,000 miles inland to the Tetons. They could live on the barest vegetation and in the crudest shelter, in terrible weather. It was those French guides who later staffed the Lewis and Clark expedition. (Ref. 5, 6) In 1685 the governor of Canada wrote to Louis XIV complaining that the colonial French had not civilized the Indians, but on the contrary, the Frenchmen who lived among the savages themselves became savages. (Ref. 7)

Throughout the entire first 2/3 of the century New France had to continually fight the Five Nations of the Iroquois League and largely because of this the Hundred Associates gave up in 1663 and surrendered their charter, allowing Canada to become a crown colony of Louis XIV. In 1665 the Marquis de Tracy arrived with 800 soldiers to wage a total war campaign against the Iroquois, killing and burning their fields and villages. (Ref. 8) The new military regime was absolute, with severe laws stringently enforced by torture, when necessary. The Marquis' chief claim to fame is that he brought girls along to be the soldiers' wives and these, along with a few descendants of extraneous unions of *coureurs de bois* with young Indian girls, are primarily the ancestors of all present day French-Canadians.

Robert Cavelier de La Salle, born at Rouen and educated in a Jesuit seminary, emigrated to Canada early in life and from letters brought to life much later, it is apparent that he started his first exploratory trip south from Canada as early as 1671. In 1675 he visited France and received a grant of the government and property at Fort Frontenac (now Kingston, Ontario), which had been previously established in 1672 under the name of Fort Cataraqui. La Salle rebuilt the fort and in the spring of 1678 was commissioned to undertake the exploration of the Mississippi River. (Ref. 9) We shall here more of him in the next section.

The first commercial venture into the Hudson Bay area was in 1668 when Fort Charles was built by Scottish entrepreneurs. Two years later the Hudson Bay Company was chartered with title to nearly 1.5 million square miles of territory. French and Scotch-

English fought minor skirmishes in this region over control of the land and its furs for the next 100 years. (Ref. 10)

THE UNITED STATES

By this time the eastern Woodland Indians were using some 275 plants for medicine, 130 for food, 31 as magic, 27 for smoking, 25 for dyes, 18 in beverages or flavoring and 52 for various other purposes. Most of the tribes of the northern United States and southern Canada belonged to the Algonquian linguistic stock, comprised of the Micmacs, Wabanakis, Etchemis, Montaignais, Natick, Abnaki, Massachuset, Penobscot, Wamponoag and Delawares, in the eastern area. The original name for the Delawares was "Lanape" and there is some evidence that they may have had some contact with the Dutch as early as 1609. Squeezed between the New York state Iroquois League, the Susquehannocks and the more southern Powhatan Confederacy, part of the Lenape moved on west and part stayed to become dependent on and eventually in some degree to fuse with the European settlers. (Ref. 11) The early history of the Shawnees is not known with certainty, but they considered the Delewares their "grandfathers". By 1650 they were living in southern Ohio and northern Kentucky where they remained for several years. Then, after quarrels with neighbors, they dispersed somewhat, from the Gulf Coast to the Delaware Valley in western New Jersey. (Ref. 12)

In what was then the "west", in addition to the Shawnee, were the Potawatami, Menominee, Cree, Ojibwa, Ottawa, Arapaho, Blackfoot and Cheyenne. A most interesting observation, recently validated to some extent by Professor Fell, is that the most western of these tribes have Mongolian physical features and Siberian root vocabularies, while their eastern cousins have markedly European physiognomies and marked grammatical and vocabulary similarities to the Semitic language of the Phoenicians (or North Africans). Even a few Celtic words have penetrated the eastern Algonquian dialects and finally there are some Norse words. Fell feels that the eastern Algonquians themselves are in great part descended from early Mediterranean colonizers and their tribal traditions, which included their ancestors crossing the sea and some of the local archaeological evidence, might be confirmatory. (Ref. 13) Few historians would back up Fell in these hypotheses and apparently no blood factor studies have been done that might tend to either

deny or confirm such ideas. The Indians of North America used little cylinders cut from blue or violet sea-shells threaded on a string as money called "wampum". Even Europeans used this legitimately until 1670 and some even after that. (Ref. 14) In 1649 the Virginia assembly had even set standard values - one yard of wampum (peake or roanoke) equaled two shillings sixpence and one fathom equaled five shillings. If the peake was black it had double the value. (Ref. 15)

Early Spanish, French and English colonists in southeastern United States encountered a 50 settlement confederation of the Creek Indian Confederacy in an area now consisting of Alabama and Georgia. The confederacy included various peoples with several languages, including Chickasaw and Choctaw. To the north of the Creek also lived the Cherokees, some 60,000 strong in about 100 settlements. Their ancestors had built large mounds in West Virginia and Tennessee. On the lower Mississippi were the Natchez, inheritors of the Mississippian Culture. (Ref. 16) Mystery surrounds the Westos and Ricahecrians, who appeared menacingly on the South Carolina and Virginia frontiers in this century. Were they one and the same people? Did they speak Iroquoian or Siouan? Many of the coastal Indians relied heavily on the sea, eating mollusks and catching fish with spears. Bows and arrows, bone hooks, basket traps and poisons. Until Franciscans established missions and promoted agriculture, Gaule Indians in coastal Georgia depended primarily on marine life. As agriculture spread, time became available for perfection of crafts such as basket-making, carpentry, woodworking, pipe-making, weaving, pottery, tanning and even certain kinds of metal work. Tobacco cultivation created a demand for pipes, some finely wrought from clay and decorated. (Ref. 17)

The Calusa were not typical southern Indians and there is much mystery about them, also. They were excellent seamen, constructing large, seaworthy, dugout canoes, some of which would hold up to 80 men. Among almost all southern Indians the men were tall for that time, usually 5'6" but some 6' or more. Both sexes were well proportioned, with the men wearing deerskin breechcloths and the women skirts. Mantles of deer, bear or buffalo skins, woven feathers and Spanish moss provided warmth in the winter. Elaborate tattooing was widespread, with extensive body decoration indicating higher rank. Ornaments were worn by men and women alike. They lived in an essentially law-abiding society, although

their laws and morals were different than their later white counterparts. Men could have as many wives as they could afford and young girls normally had sexual relations freely. Divorce was easy, but adultery resulted in severe punishment both for the guilty one and the clan. There is little question that Indians scalped their victims, even before Europeans arrived. (Ref. 18)

The Powhatans in the Virginia Tidewater were the most densely populated of any Indians of the south, and even in 1650 after white contact had begun its depopulation from disease, Dobyns² estimated that there were 1,357,000 Indians in the South as a whole. Archeological finds backup this high population density. We have already detailed in the last chapter the story of the early Spanish explorations in the southern United States and something about their contacts with the Indians. The early English crossing of the Atlantic westward had to take essentially the same course as Columbus and the Spanish, because of the currents and winds that have been mentioned on several occasions. Raleigh's expedition to Roanoke Island, in the last century, sailed through the West Indies before the Gulf Stream carried his ships northward and the early Jamestown settlers had to follow the same course. In the first half of the 17th century 60,000 Englishmen sought refuge in the New World, chiefly in the United States. In addition there were a few Dutchmen and Frenchmen and a sprinkling of Swedes and Finns, as we shall see below. After the original colonization period along the Atlantic coast, there was a period from about 1640 to 1660 when the colonies were left pretty much alone, because of civil war and its sequelae in England. From 1675 to 1691 or after, however, there was a time of troubles in the colonies, including Indian Wars, local rebellions, French incursions, etc. It will be most convenient to discuss the history of this century under regional headings:

NEW ENGLAND COLONIES

This designation included colonies of New Hampshire, Massachusetts Bay, Rhode Island and Connecticut. By 1700 there were 130,000 people in this geographical area, with 7,000 in Boston and 2,600 in Newport. These settlers all belonged to the more independent classes and possessed a great mass of intelligence, which was to greatly influence the government and commerce of America for generations to come. (Ref. 20) The first Englishman to explore the New England area was Bartholomew

Gosnold, who sailed from the Azores in 1602 to go along the coast from Maine to Cape Cod. He built a house on Cuttyhunk, traded with Indians and left smallpox on the new continent. He was followed by Thomas Hunt, taking Indians as slaves in 1615 and perhaps again introducing smallpox. By 1617 an epidemic of this disease reduced the Indian population by over a thousand, some say as much as 10,000. (Ref. [21](#))

NEW HAMPSHIRE

Two small proprietary colonies were set up - one in New Hampshire and one in Maine. The latter belonged to Sir Ferdinando Gorges, whose heirs soon sold out to Massachusetts, but small settlements at Portsmouth and Exeter, N.H., which began as personal estates of Captain John Mason, persisted even after being sold to the crown. New Hampshire was not truly a separate province from Massachusetts until after 1691. In 1690 the first man-of-war built for the British navy in America, the "Falkland", was completed at Portsmouth, New Hampshire.

MASSACHUSETTS BAY

Some Puritan separatists, who had seceded from the Church of England to the Netherlands, under William Brewster and accompanied by William Bradford, founded the new Plymouth colony in 1620. They immediately set up their own self government under the Mayflower compact. The Mayflower expedition was subsidized by a loan of 7,000 pounds and it had 149 people, including about 40 "separatists" (i.e. separating from the English Church), chiefly from Leyden where they had previously gone. In the first winter in the new land over 1/2 died of scurvy or general debility. They had tried to hit northern Virginia, but missed their target. After the first few seasons, William Bradford became their governor. These Pilgrims deserve to be famous for two things; first, they survived and secondly they proclaimed the Mayflower compact, a bold assertion of their right to self-government. Following the Mayflower was the great Puritan migration of the 1630s. The promoters of the Massachusetts Bay Colony put up 200,000 pounds. The group was led by John Winthrop, a Puritan (different from the "Separatists"), who only wanted to "purify" the Church of England. They first sailed in March, 1630 with 500 men, women and children. On arrival, they raised cattle, Indian corn and

vegetables and soon developed both a fur trade and cod fishing. Winthrop was very concerned about the saintliness of his colony, but not his customers, as he sold cod and later ships to Roman Catholics and to slave-holding Virginian planters alike. This colony was at once a theocracy and an oligarchy, yet it adopted trial by jury, freedom from self-incrimination, and levied no taxes on those who could not vote. But there was no religious tolerance. Baptists and Quakers-were the Devil's agents and the Quakers were the worst. By the penal law of the colony any Catholic priest, who reappeared there after having once been driven out, was subject to death. (Ref. 22) Witchcraft was persecuted, but chiefly after Winthrop's death. (Ref. 23) The Puritan migrations continued until 1637 when the English Puritans decided to stay and contest their fate in England, itself, as its Civil War started. That war kept Charles I from suppressing the Bay Colony and its government became a model for the other colonies. In 1634 Massachusetts joined with her neighboring Puritan colonies to form the New England Confederation. This was a loose union formed to settle boundary disputes and give mutual protection from Indians, French and Dutch. Free, public education was soon established, a printing press appeared in Cambridge in 1639 and Harvard University was established in the same city in 1650.

In 1675 serious Indian troubles began in the so-called King Philip's War. Metacom, chief of the Wampanoag and called King Philip by the English, was one of the original friends of the Pilgrim fathers and a frequent patron of Boston stores. But he became surly over various chastisements and developed a plot to attack the settlers. The chief's Harvard educated Indian secretary, Sassamon, tipped off Governor Winslow, however, and Sassamon was subsequently killed by other Indians. The murderers were found, tried and hanged. Two weeks later war broke out with Philip's Wampanoag and their allies, the Nipmuck. The New England Confederation retaliated with a declaration of war, thus involving Connecticut. The Indians were not organized and had only hit and run tactics. The Narragansett tribe on the Bay sheltered some of the Indian refugees, giving Winslow the excuse to attack them with 1,000 men and finally winning in the roughest battle ever fought on New England soil, save the later battle of Bunker Hill. Philip was killed in August 1676 and most of his Indians were captured. The women and children were used as house servants and the men were

shipped to the West Indies as slaves. The war in the area of Maine did not end until 1678 and the Indians there retained their land and later helped the French against the English. (Ref. [24](#))

When the Catholic king, James II, assumed the English throne in 1685 the Massachusetts Bay Colony was given a new administrator, Sir Edmund Andros. When William and Mary ascended the English throne, however, the people of Boston jailed Andros and returned to their pre-Andros government. New troubles began in 1689 when the French and their Indian allies began to raid in Maine and New Hampshire. The New England authorities at Boston struck back directly at Port Royal and Quebec, as the first offensive of the King William's War. The campaign, under Sir William Phips in 1690, was a fiasco. The dreary war dragged on and although King William ended the European end of the conflict in 1697 with the Treaty of Ryswick (see **Europe**), the American battles continued until 1699.

RHODE ISLAND

This Puritan colony was founded by the Reverend Roger Williams, who had been banished from the Massachusetts Colony. Williams was loved by the Indians, lodged with them, learned their language and respected them. He felt that it was possible that God might feel their religion equal to Christianity, a heresy of that day. The only unity in the colony was one of religious liberty. Its fate was to be found with the other Puritan colonies in the New England Confederation.

CONNECTICUT

Connecticut, too, was formed as a migration from the Massachusetts colony, led by the Reverends Hooker and Stone. The original settlements were along the Connecticut River at Hartford, Windsor and Wethersfield. New Haven was settled separately, but all joined together as Connecticut, in 1662. A code of laws was drawn up, beginning with penal laws, which were actually borrowed from the Bible. (Ref. [25](#)) Like Rhode Island, this colony's history in this century is bound to that of Massachusetts, in the Confederation.

MIDDLE COLONIES

This designation included New York, New Jersey and Pennsylvania along with the small area of Delaware. By 1700 there were approximately 65,000 people in this group of settlements.

NEW YORK

In 1609 Henry Hudson sailed up the river bearing his name and by 1629 his Dutch people had settled New Amsterdam at the mouth of the river, using a Dutch Company charter. The famous purchase of Manhattan Island from the Wappinger Indian Confederacy for a few trinkets occurred in 1626. (Ref. 26) The social structure was a type of feudalism and the colony did not do well. By 1660 New Netherland had only 1/2 the population of Connecticut. The Dutch traded with the Delaware Indians some, but then got into warfare at the future site of Esopus on the Hudson. The Delawares then sold most of their land and moved to the Susquehanna Valley in Pennsylvania. In 1644, as a by-product of a Dutch-English War, the Duke of York sailed into the New Amsterdam harbor with four English frigates and took the city without a shot being fired. New York has never been racially or geographically homogeneous, even in the beginning. The Jesuit Simon Le Moyne visited the area of future Syracuse in 1654, finding important salt deposits there.

New York did not contribute to the defense of New England in their early troubles and the Duke of York pretty well made his own laws and levied his own taxes. The province extended from Canada to the edge of Maryland and the cost of administration was great.

In 1683 the Duke instructed his Irish governor, Colonel Thomas Dongan, to summon an assembly primarily for the purpose of raising funds. It met and enacted "The Charter of Liberties and Privileges", declaring that the assembly had the supreme legislative authority and that no taxes were to be levied without its consent. Shortly thereafter, however, the erstwhile Duke of York had become King James II and he promptly disallowed this declaration of rights and New York became a royal province, with no assembly. With the subsequent banishment of King James, there was much confusion in the colony and this was augmented by a combined French and Indian attack from the north, resulting in the destruction of the town of Schenectady.

NEW JERSEY

The Duke of York originally gave New Jersey as a gift to two friends, George Carteret and Lord John Berkeley. Philip Carteret, cousin of Sir George, came over from England to take possession in 1665. He gave a liberal grant of political privileges - the best on the continent - to the few hundred Dutchmen and English Puritans who

lived there. A representative assembly first met in 1668. The situation became very complicated a few years later when there were two Jerseys - East New Jersey, with an assembly meeting at Elizabethtown and a West New Jersey, with an assembly meeting at Salem or Burlington. Confusion in land titles for the next 75 years resulted from these conflicts. The proprietors did not surrender their governmental powers to the crown until 1702.

PENNSYLVANIA

William Penn got the charter for Pennsylvania from Charles II in 1681 and brought over Quaker dissidents from England, Wales, the Netherlands and France. The voyage took two months and one-third of his people died of small-pox, en route. (Ref. [27](#)) The Quakers, as we have noted previously, were a left wing Puritan sect founded by George Fox in 1650. Penn established the city of Philadelphia in 1682, where some Swedes and Finns were already settled. Germans of the Mennonite sect soon also arrived and settled, so that by 1700 Philadelphia had outstripped New York City and was pushing Boston as a cultural center. Yellow fever killed 220 people in Philadelphia at the end of the century. (Ref. [28](#))

DELAWARE

The Swedish West India Company had established the small colony of New Sweden, centering on Fort Christina on the site of present Wilmington, in 1638. This consisted of only 200 to 300 Swedes and Finns, but they brought log construction and the log cabin to America. Peter Stuyvesant, of the New Netherland Colony, annexed this weak Swedish settlement in 1655 so that when the Duke of York took over the Dutch possessions, this area became part of that. William Penn later purchased the region from the Duke and for years it was called the "Three Lower Counties" of Pennsylvania. The Charter of Privileges, which Penn brought back in 1699, allowed these three counties to have their own assembly, but their governor was always the same as Pennsylvania's. These three counties, however, were the future state of Delaware. (Ref. [29](#))

CHESAPEAKE BAY COLONIES

VIRGINIA

The first true and lasting settlement in the United States was made at Jamestown, off Chesapeake Bay, in 1607 by Englishmen who,

according to de Tocqueville (Ref. 30), "were seekers of gold, adventurers without resources and without character."³ Existence in this nucleus of the Dominion of Virginia in the early days, was miserable. Of the initial group, consisting of 104 men and boys, 51 died of disease and starvation within 6 months. Help from Indians and the arrival of a supply ship saved the rest. That ship also brought 2 women and 5 Poles, who had been recruited to begin the production of pitch, tar and turpentine. (Ref. 31) In the end, however, salvation came with the Indian crop, tobacco. (Ref. 32) Between the years 1616 and 1624 Virginia was changed from a trading post to more of a genteel, permanent community. There were several factors in this transition. One was tobacco, of which Virginia exported some 50,000 pounds as early as 1618. A second factor was the institution of private property and a third reason was political, in that English common law was in effect along with a representative assembly.

The Indians of the Tidewater at the time of the planting of the Jamestown colony were the powerful Powhatan Confederacy (Tsenacommacah). They were Algonquians, but Iroquois, Sioux and Muskogean all lived close by. There were rumors of blond, blue-eyed Indians to the south, but these were probably survivors from Raleigh's lost colony or shipwrecks. Although a century earlier Tsenacommacah may have had over 100,000 inhabitants, the population was considerably less in this 17th century. The microparasites introduced by the visits of Verazzano, Menendez and Raleigh had already done much of their destructive work. Contemporary writers accused the Powhatans of sacrificing children, but this was a mistaken concept of the *huskanaw*, an initiation rite in which at the appropriate time children were collected and sent to a designated spot in the woods, where for weeks they subsisted on a limited diet. Perhaps some drugs and rigorous mental and physical ordeals were supervised by their priests, but they were not killed, although some of the weaker may have perished. The local chief at the time of the Jamestown founding was Powhatan, whose daughter was the famous Pocahontas, captured in 1613 by Samuel Argall, to be used to influence the chief to make peace. She married John Rolfe in 1614, visited England and died there in 1617, though her son Thomas survived. Thomas Rolfe was not the only mestizo born from the white-Indian contact at Jamestown. (Ref. 34)

The Virginia Company was reorganized in 1619 and a new leadership was established. Captain George Thorpe, a pious Anglican, who had started to build a college in Jamestown, might have risen to leadership, but in 1622 Opechancanough, successor to Chief Powhatan, rebelled and massacred some 300 whites, burying an axe in Thorpe's skull. Thereafter the settlers waged a relentless war against the Indians, burning and pillaging their villages and cutting down or carrying off their crops. This also gave the opportunity for capturing slaves, which the English, as the Spanish before them, did with enthusiasm, using them locally or sending them to Bermuda or Barbados. A treaty was negotiated with the rebellious tribes in the Potomac River area in 1623. After a toast was drunken symbolizing eternal friendship, the Chiskiack chief and his sons, advisers and followers totaling 200, abruptly dropped dead from poison and soldiers put the remainder out of their misery. It was perhaps from this encounter that Captain William Tucker and his men brought back 50 Indian "heads", presumably scalps, though somewhat more may have been included. The second and last major conflict in the Tidewater was the 1644 massacre, plotted again by the aged Opechancanough, with more than 500 colonists killed. One out of every 16 Virginians perished. (Ref. [35](#))

In the meantime in 1624 Virginia had become a crown colony with a governor and council appointed by the king and it was well governed and prospered. Although the Indians had grown and smoked tobacco for centuries, their variety was too bitter for the whites and John Rolfe imported a new species from the West Indies and perfected a method of curing it. This was the tobacco that was to be exported. The transplanted English soon imported or manufactured locally their own wampum, the blue beads which had become standard trade items. An aboriginal canoe in 1624 was worth 10,000 blue beads, a stack of mats brought 20,000.

The most serious Indian conflict in the latter half of the century was the fighting associated with Bacon's rebellion. Susquehannocks had moved into the Potomac area and although they at first were treated badly, Governor Berkeley had them protected by scattered forts.

But whites continued to be killed, including the overseer at the plantation of Nathaniel Bacon, Jr., so Bacon and his neighbors denounced the governor for depending so much on the frontier forts and implied that he had a secret interest in Indian trade. Bacon's

men surprised the Occaneechees, who were allies of the Susquehannocks, burning and capturing their fort and shooting or burning to death almost all the Indians. Hostilities flared all along the frontier and Governor Berkeley finally in June of 1676, authorized a full campaign against the natives, with Bacon as commander. When Bacon became sick and died, however, Berkeley regrouped and had Bacon's followers executed and their property confiscated. Although he then negotiated still another treaty with the Indians, the whites continued their destruction so that by 1700 there were only approximately 1,400 aborigines left in the Tidewater. Near the end of the century the depleted Powhatans were led by the good Queen of Pamunkey, who actually accepted a tributary status to the whites. The English policy of encouraging tribal rivalries, of dividing and conquering, had succeeded. Farther inland the Tuscarora, Cherokee and Seneca warriors, although possibly never seeing a white face, were well aware of their presence in the Tidewater because of the commerce and the small-pox epidemics that reached them. (Ref. 36)

We should add a few final notes before we leave Virginia in this early colonial period. In 1609 "Martin's Hundred" had made a settlement at Walstenholme. It was actually larger than Jamestown, but it disappeared in an Indian massacre and has only recently been excavated. The "dig" shows that the Englishmen were in full metal armor like medieval knights and the heavy armor and a closed helmet hampered movement, restricted vision and muffled warning signs of approaching enemies. It is no wonder they were no match for the Indians. (Ref. 37) An interesting sidelight is also to be found in recent recovered fragments from a 1619 shipwreck in Castle Harbor - 5 sherds of Roman pottery. It was initially thought that these might have been picked up from old gravel beds along the Thames, used for ballast pebbles in the ship, but experts have said definitely that the gravel did not come from the Thames. So, the riddle of Roman pottery in Castle Harbor remains unsolved. (Ref. 38) Could this have some bearing on Barry Fell's hypotheses about European visitors to the American hemisphere around the time of Christ? Finally we should note that English ships brought the first black slaves to Virginia in 1619⁴ but in the first 40 years no more than 300 arrived altogether. By the 1680s, however, they were brought in at the rate of 60,000 every decade. (Ref. 39) In time both Negro and Indian slavery assumed more and more importance

in Virginia. Often young Indians were taken into apprenticeships, but of ten the terms never expired and in essence it was still slavery. According to a 1669 law, foreign - that is non-Virginian Indians - captured in war and those imported by sea and sold, were to remain slaves for life. Governor Berkeley owned native slaves. A frequent reason for the hostilities with Indian enemies and allies, alike, was the opportunity to capture slaves. Rather than peltry, they were the real plunder. The Indians themselves kept slaves and had severe punishments for runaways. They severed their Achilles tendons or cut off their toes and half of their feet, carefully folding the skin over the stumps so that they would heal. The slaves could then work in the field, but could hardly run away again.

MARYLAND

Maryland was a part of Virginia until 1632 when King Charles I gave a slice of that original colony to his friend, Lord Baltimore (George Calvert of an old Yorkshire family). Baltimore died quickly, however, and his son got the charter and administered Maryland from England. It was basically a Catholic colony and although named Maryland ostensibly after Queen Henrietta Marie, it was in reality named in honor of the Virgin Mary. Tobacco was the one great cash crop. Servants might be of any class from poor gentlemen working off the cost of transport, to convicted felons. Many of the English sovereigns transported Scottish and Irish prisoners from the civil wars to Virginia and Maryland, as well as to the West Indies. Negroes were also imported and in 1664 the Maryland assembly passed a "black code" which declared each Negro to be a slave for life by virtue of his color. At all times during the century, except for a short period in the 1650s, Catholics were the ruling class in this colony, although with increased immigration Protestants became finally the overwhelming numerical majority. (Ref. [42](#))

THE CAROLINAS

In this century the English began referring to the great land south of the James River as "Carolina". Going south from the James, one had to go 500 miles to encounter another European settlement and that would be the Franciscan mission at Port Royal Sound. Mississippian style villages with council houses or rotundas, plazas and fields of maize were still present throughout that area. Lord Ashley (John Colleton, a Barbadian planter) received a Charter for the Carolinas

in 1963, but there was no settlement there until 1670, when Charleston was founded. Even then little was accomplished until the Huguenots came in 1680. Those French formed, eventually, the aristocratic South Carolina while North Carolina was settled by poor whites moving in from Virginia. The two Carolinas were not separated in this 17th century, however.

The aborigines surrounding Charleston already had guns, which they had obtained from the Spaniards and even from some Virginia traders. Some tribes, such as the Westos, were well armed, using more European weapons than bows and arrows and they terrified their less well-armed neighbors at the time. They lived on the Savannah or Westo River near present day Augusta, in part of the kingdom of the Cofitachique. Whether there was any connection between the two tribes is uncertain. The Westos have now become extinct, apparently having been destroyed by the Shawnees (Savannahs) who subsequently migrated westward again into Alabama, then northward into Kentucky and the Ohio country and eventually to Oklahoma. Among a few others, the pack trains of Abraham Wood, working out of Charleston, helped to supply the Westos with guns. He knew a great deal about the southern Indians, most of which were tribes that were remnants of the Cusabo chiefdom. None were strong enough to protect themselves and they looked to the English, the Spaniards or the Westos for protection. But Woodward felt that the Westos depended too much on Virginia and, changing his alliances, he and other Carolinians resolved to exterminate the Westos and install the Shawnees in their stead. (Ref. 43)

A group of Indian fighters called the "Goose Creek men" then emerged and assumed more power in the colony. Most of them were originally from Barbados, and at the end of the century one of them, James Moore, even became governor. These men soon brought most of the southern aborigines into their commercial orbit, at the expense of Spain, Virginia and later France. The Creeks, Shawnees (Savannahs), Cherokees and Yamasees usually could get cheaper guns, hardware and clothing from Carolinians than from anyone else. Incited by the Goose Creek men, the natives overran Spanish missions, burned chapels and sometimes the padres and carried off booty. First to fall were the Guale missions and some of those in Timucua. Timucuan, Guale and Yamasee Indians lived in those missions which in 1670 had stretched north from St.

Augustine to the Savannah River. Yamasees from both the coastal missions and the Chattahoochee, for protection, began moving in large numbers closer to Charleston. Then the Goose Creek men began to use the Yamasees to demolish missions in Guale and Timucua. The booty included silver plate, ornaments, peltry, and especially slaves, all of which the Carolinians exchanged for guns, powder, hardware and textiles. After white contact, the Indians relied less on agriculture and hunted more, with young ones ranging hundreds of miles, some even crossing the Mississippi River and covering more than 1,000 miles before returning home. (Ref. 44)

Carolina, established relatively late, nevertheless soon had an Indian slave trade that overshadowed other mainland colonies. In late century these normally came from the interior and were marched in large numbers to the coast for sale to English purchasers. As in Africa, natives captured and sold natives. Westos, Savannahs, Lower Creeks and Yamasees, among others, raided remote towns and brought their prisoners to Charleston. Incidentally, yellow fever killed 150 people in Charleston in 1698. (Ref. 45, 46) Sometime during this century the London Company started a settlement in what was to be South Carolina, which thrived on ambergris, a secretion from the whale's intestine that was to be found floating on the sea. It was used in perfumes. (Ref. 47)

EXTRA-COLONIAL AREAS OF THE UNITED STATES

THE SOUTHEAST

Spain began establishing her second great mission system in the province of Apalachee after 1630, well after the founding of Jamestown. By the 1670s some 20 smaller missions radiated from the principal one at San Luis (Tallahassee) and a road connected that province with St. Augustine. Still Spain's grasp on the area was weak and the garrisons averaged only 300 to 400 men and even these were not the flower of the Spanish army. They were greatly outnumbered by the surrounding natives and, as we have noted in the preceding section, these were often encouraged to attack by the Carolinians. The priests did make many converts, however, and since the cross had long been one of the symbols of the Southeastern Ceremonial Complex, the padres reported that the Indians fervently came forward to kiss the newly erected cross.

Even as early as the preceding century Franciscans had learned the tongue of the Timucuan and Apalachee and that knowledge helped preserve much information about those peoples. Some Timucuan and other natives were actually reading, writing and singing in Castilian, as well as writing in their own language. But the missionaries could also be cruel and they whipped Indians who missed Mass, forcing them to be porters transporting goods some 200 miles from St. Augustine without pay, among other penalties. It is no wonder that they could easily be influenced to revolt. (Ref. 48)

Because of the fear of the French in Louisiana, Spain had a mission on the Neches River in 1690 and later a garrison at Pensacola, Florida. Even so Florida remained sparsely populated. There were droves of wild pigeons, parrots and other birds, so that many boats came away loaded with birds and their eggs. (Ref. 49)

THE MISSISSIPPI RIVER REGION AND LOUISIANA

The French explorer Jean Nicolet, who had lived among the Hurons since Champlain's expedition of 1618, explored the Lake Michigan and Wisconsin regions in 1634. (Ref. 50) Courcelles and Frontenac explored farther in the Great Lakes regions in - 1671 which was about the same time that Robert Cavelier de La Salle made some preliminary investigations down in the headwaters of the Mississippi River. In the following year Jacques Marquette explored the region around Chicago and a few years later, with Father Louis Jolliet, went down the Mississippi to the Arkansas tributary. (Ref. 51)

We noted above, in the section on **Canada**, that La Salle obtained some permits from the French crown to continue studies of the Mississippi. He and his party left Fort Frontenac (Kingston, Ontario) in the fall of 1678 and after some backtracking, failure to get more funds from the French king and other troubles, La Salle and his trusted aid De Tonty arrived at the Miamis River in November, 1681 with a party of 23 Frenchmen, 18 savages, Abenakis⁵, and Loups, 10 Indian women and 3 children. They reached the Mississippi in February 1682 and on their course down river first fell in with the Chickasaw Indians, who practiced the flattening of the heads of their children. They reached the Gulf of Mexico on April 7, 1682 and formally took possession in the name of Louis XIV.

Some of the adventures and hardships experienced by La Salle's company on its trip down the Mississippi are best taken from La Salle's own Memoirs, as translated in 1844 by Falconer (Ref. [52](#)). La Salle wrote that he undertook the trip to satisfy the wish of the late Monseigneur Colbert, finance minister of France, of finding a port where the French might establish themselves and harass the Spaniards in those regions from where they derived all their wealth. He described the mouth of the Mississippi by saying that the coast and the banks were overflowed for more than 20 leagues above the mouth, making it inaccessible by land. He told of an assembly of more than 18,000 Indians of various nations, some of whom had come from a distance of more than 2,000 leagues (probably 600 to 700 miles) to throw themselves "into his arms". Because these Indians had already carried on war against the Spaniards, even without firearms, La Salle felt that it would be possible to form an army of more than 15,000 savages who would follow him to attack the adjacent provinces where there were not more than 400 native Spanish. He was apparently speaking of New Bisca, the most northern province of Mexico. He strongly advised the French crown to consider settling the Mississippi mouth region because "-firstly, the service of God may be established there by the preaching of the Gospel to numerous docile and settled nations--. They have already temples and a form of worship." He added that provinces which might be seized were very rich in silver mines; that the river itself was navigable for more than a 100 leagues for ships and 500 leagues for barks and overall for more than 800 miles from east to west.

Concerning the trip down the river, itself, the following information has been taken from writings of both La Salle and the Cavalier Henry de Tonty, as translated again by Falkoner. (Ref. [53](#)) La Salle actually made 5 voyages under extraordinary hardships, extending over more than 5,000 leagues, most commonly on foot, through snow and water, almost without rest over 5 years. He traversed more than 600 leagues of unknown country among many barbarous and cannibalistic nations, against whom he was obliged to fight almost daily, although he was accompanied by only 38 men. Many of the various tribes he encountered lived in settled villages consisting of hundreds of cabins, of ten made of mud, with cane mats. In one such village the cabin of the chief was 40 feet square, the walls 10 feet high and 1 foot thick, with a 15 feet high,

dome-shaped roof. The chief was seated on a camp bed with 3 of his wives and more than 60 old men, clothed in large white cloaks of mulberry bark were present. Sieur de Tonty was told that when the chief dies, his youngest wife, his house-steward and 100 men accompany him into the other world. In one village of the Natchez, there were more than 300 warriors. De Tonty contrasts these lower Mississippi people with those in Illinois- who lived in some of the finest lands he had ever seen. He said the Illinois Indians were brave but extremely lazy, except in war, when they think nothing of seeking their enemies at a distance of 600 leagues. Polygamy prevailed there also.

Finally La Salle's application to form a colony on the south of the Mississippi was authorized and this time he approached from the sea in the summer of 1684, with 4 vessels. Unfortunately, after passing Cuba they inadvertently missed the river and finally landed in what appears to have been Matagora Bay. La Salle built a fort there, left 130 men to man it and then left in March, 1685 with another 50 men to find the Mississippi. Still not locating his goal, he built another fort on a river he named "Vaches" and abandoning the first fort, 70 men, women and children moved to this new place. But 30 of his company had died and the master carpenter had been lost. Still this second fort had more people than the colony of Smith of Virginia or of those who embarked in the Mayflower. This was the settlement on which France based claims that Texas was a part of Louisiana.

While La Salle's ship Belle sailed along the coast with his papers and equipment, he took 20 men and started overland, still seeking the Mississippi delta. He returned in 4 months but the Belle had apparently been lost. The leader then selected 20 men to accompany him back to Canada overland, leaving the fort on April 22, 1686. He became ill on the Trinity River, however, and had to return to Vaches. There then remained about 40 of the original 180 people, who had landed in Texas. La Salle again started north in January of 1687 only to be assassinated along with some of his most faithful followers, by a group of 4 disgruntled Frenchmen, at Navasoto, Texas. A few of the party eventually reached St. Louis, where De Tonty was found. In the spring of 1686 he had sailed down the Mississippi and, reaching the sea, had sent canoes east and west, vainly seeking his old companion and friend. The few survivors left in Texas from La Salle's expedition were subsequently

either captured by Indians or by Spaniards, and taken to Mexico. (Ref. [54](#), [55](#))

The failure of this expedition did not deter the French government in its pursuit of Gulf settlement. In 1697 the Canadian D'Iberville sailed down the Mississippi and with other voyages planted a colony which he left in charge of his brother Bienville. The brave and generous De Tonty joined D'Iberville at the mouth of the Mississippi about the year 1700. (Ref. [56](#)) This was at about the same time that Cadillac was founding a fort at Detroit in the north.

THE SOUTHWEST

Governor Don Juan de Onate set up the first Spanish government in the southwest at Santa Fe, 10 years before the Pilgrims landed in Massachusetts. For the next 200 years Spanish outposts in Arizona, Texas, California and New Mexico slowly developed an economy. The Spanish introduced 2 indispensable elements in the life of western America - the horse and the cow. The horse, originally terrifying the Indians, eventually set them free from Mexico to the Canadian tundra. The Spanish also left the whole heraldry of ranching in the language - corral, mesa, arroya, patio, adobe, mustang, sombrero, desperado, poncho, alfalfa, bronco, lariat and others. (Ref. [57](#)) By 1630 there were 1,000 people in Santa Fe and the immediate area, including 250 garrisoned soldiers. There were 50 friars distributed in 90 villages, each with their own church.

Trouble between civil and church authorities was not long in appearing. By 1680 the population in the area had increased to 2,800 and there were towns at Pecos, Taos, Santa Cruz, San Marcos, etc. but all were evacuated when an Indian revolt of Zuni, Hopi, Tano and Keres Indians, under Pope', revolted. Some 2,000 refugees reached El Paso. Pope' made himself governor, but his bad reign and a long drought led to disarray, allowing recapture of this area of present day New Mexico and western Texas by Diego de Vargas rather easily in 1692. (Ref. [58](#), [59](#))

Alonso de Leon had established a mission at San Francisco de los Tejas, near the Neches River in 1690, but it was abandoned in 1693. (Ref. [60](#)) Father Eusebio Kino visited the Pima Indians on the Gila River in southern Arizona in 1697 and, finding them friendly, he established a mission near present day Tucson, in 1700. The Pima were experts with bow and arrow and had war clubs and rawhide shields. (Ref. [61](#))

THE FAR WEST

The Great Plains and the far west were certainly moderately populated with many and varied Indian tribes in this century, but in the absence of contact with whites little accurate information is available. The reader is referred to the 18th and 19th centuries.

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

Already Mexican Society was divided into several classes based chiefly on race and color. First there were the Indians, living primarily in their villages under the rule of the caciques, with their numbers greatly dwindled. The second class was the Creoles, a white population born in Mexico and descendants of the conquistadores. Next were the Mestizos, who were half -breeds, half Indian and half white and finally the Gachupines, natives of Spain sent over for administration. Instead of being incorporated into Spanish civilization the Indians regarded all white men as their enemies and the Creole landowners encroached on the Indian villages' land. Government attempts to protect the Indians were foiled by corrupt officials and Indian ignorance of the law. (Ref. 62) The few remaining primitive Chichimec Indians of the north Mexican desert were still being hunted and run to earth "like wild animals". (Ref. 63)

The decay of the Spanish Empire in Europe did not enable the Creoles to usurp powers of self-government, however, because they were themselves victims of the Gachupin bureaucracy. This bureaucracy tapped the wealth produced by the labor of the native population. On the surface all was peace, passivity and decay, but explosive forces were slowly developing. Communications remained primitive; there were no roads; and Mexican industry was suppressed in part because of jealousy of the Spanish merchants. Mexico was unable to develop any native commercial class.

The drop in the Indian population of Mexico in just 5 or 6 generations was almost unbelievable although the exact figures are still being debated. Tannahill (Ref. 64) says that by 1605 central Mexico had only 1,075,000 people, down from 25,000,000 at the time of Cortez and that the decrease was due to war, economic upheaval, exploitation and new diseases, representing one of the most comprehensive human catastrophes of the world. The

deliberate encouragement of alcohol in the forms of *pulque* and *mezcal* among the Indians must also have been a deteriorating factor. State revenue from pulque in New Spain was equal to one-half the revenue from the silver mines. (Ref. 65) William McNeill (Ref. 66) writes that the entire population of Mexico was, at 1,600,000 in 1620, a 90% drop with drastic psychological and cultural consequences. Faith in established institutions and beliefs cannot withstand such disaster and skills and knowledge disappear. Thus, it was easy for the Spaniards to transfer their language and culture to the New World.

Masses of goods were shipped from Seville to Central - America and the responsible merchants expected to be paid in silver bullion. In 1637 there were allegedly heaps of silver wedges lying in the street in Porto Belo, Panama. Most of this, of course, had been brought up from the Potosi mines of South America. (Ref. 67) The silver was landed at the port of Panama and then moved by mules and boats (on the Chagres River) across the isthmus to Porto Belo on the Caribbean. But the muleteers and boatmen had to be fed maize, which itself was imported from Nicaragua or Chile. The year 1626 was a barren year and 100 to 150 tons of maize had to be obtained from Peru to keep the silver going. (Ref. 68) The Welch buccaneer, Henry Morgan, captured Panama City in a treaty violation with Spain, but although at first put on trial, he eventually was made Lt. Governor of Jamaica and put in charge of ending piracy. (Ref. 69) In 1695 the Spanish started to build a road from Campeche to Guatemala and encountered many ancient buildings on deserted, overgrown terraces, the remnants of the previous Indian civilizations. (Ref. 70) Yucatec-speaking Indians, fleeing disease and general disruption, went from the rain forests of Guatemala, with their bows and arrows into the region of Chiapas, Mexico, where they were subsequently known as the "Lacandon Maya". (Ref. 71)

The society of New Spain was dominated by the clerical hierarchy. Beneath an archbishop were 8 other bishops and members of the Inquisition. The Indians became Catholics while still remaining pagan; the clergy rapidly became degenerate, while growing richer. The ideal of the New World Church - or at least that of many of its clergy - was a despotic government, a privileged priesthood and an ignorant laity. (Ref. 72)

Every European major power was interested in the "sugar islands"

of the Caribbean and there were many possessions and trading of island territories between Spain, France, England and Holland. (Ref. 73) The Dutch had brought the cane from Brazil when they were expelled from Recife in 1654 and it soon reached Martinique, Guadeloupe, Dutch Curacao, Jamaica and Santo Domingo. After 1685 production showed an uninterrupted increase and this sugar production required a tremendous labor force, this resulting in the black slave importation. But cane left little space for food crops and edibles had to be imported from Europe or North America. The same could be said about the lack of skilled craftsmen and engineers⁶. Even nails and boilers for the sugar mills had to be brought from Europe. (Ref. 74, 75)

England established colonies on Bermuda in 1612, Barbados in 1627, and Jamaica in 1655. By 1676 some 400 ships, each carrying about 180 tons of sugar, left Jamaica.

By 1690 there were an estimated 40,000 slaves on that island, working the sugar estates and their revolts and desertions resulted in almost continuous military action throughout the last decades of this century. (Ref. 77) The British from Bermuda began settling the Bahamas in mid-century but were subject to pirate raids by Spanish and French and they did not establish real sovereignty until late in the next century. (Ref. 78) It was not until 1680 that sugar spread to the western half of the island of St. Domingue, which had been French until the middle of the century.

By this century the Caribbean Taino Indians were extinct and the African slaves took the places of these vanishing Americans, perhaps in part because they were resistant to malaria. This disease arrived in the Gulf area after 1650, with the imported Africans. The first epidemic of yellow fever occurred in Guadeloupe and St. Kitts in 1635 and in Yucatan and Havana in 1648 after the *Aedes Aegypti* mosquito had voyaged over on ships from Africa. As a result of these diseases even the whites decreased in numbers or disappeared as the blacks increased. (Ref. 79, 80) Overall perhaps as many as 340,000 black slaves were brought from Africa in this century alone. (Ref. 81, 82) Settlement in these West Indies was for a long time more extensive than on the American mainland, however, and by 1700 there were 121,000 inhabitants in this area.

SOUTH AMERICA

NORTHERN AND WESTERN SOUTH AMERICA

Even at the beginning of this 17th century the Spanish were continuing to search for "Eldorado, the Land of Gold", but up to the early decades, except for a few nuggets of gold, a fairly good supply of emeralds and some cinnamon, there was little to show for the century of exploration. The entire west coast of the continent had been explored, however, and the foundations had been laid for every one of the 20 republics of Central and South America, excepting Argentina. In one generation the Spaniards had acquired more territory than Rome conquered in 5 centuries-and the Spaniards organized and administered all that they conquered. (Ref. 83) The Spanish New World was first divided into two great viceroyalties of Nueva Espana (Mexico) and Peru, to which La Plata (Argentina and Chile) and Nueva Granada (Columbia and Venezuela) were later added. Portuguese traders had infiltrated all of Spanish America. Even in a town like Santiago, Chile, with 10,000 people, one could find a Portuguese merchant. They often also doubled as bankers and occasionally, as in Potosi in 1634, public opinion accused them of being "new Christians" or even Jews and subsequent Inquisition trials put an end to their property. (Ref. 84)

By 1650 Potosi, in Bolivia, was the largest city in South America, with 160,000 people, with Indian peasants forced to work in the great silver mines under extreme hardship conditions. (Ref. 85) The South American Indians felt that they could not work or go on trips without chewing the coca leaf mixed with ground lime. Containing cocaine, this half-stimulant and half-narcotic does deaden fatigue, pain, and hunger and facilitates breathing at high altitudes. The terrible effects of widespread use of the purified drug, however, are now becoming all too obvious in the United States. (Ref. 86) It is not well known, but statistics from the archives of the Peruvian viceroyalty show that at least 300,000 Africans were brought into Peru in this century. By that time the number of native Indians had fallen to 700,000 so one may judge the impact of this importation of blacks. The lowlands of Ecuador and Colombia had also been Africanized to an unknown degree. In the highlands of the Andes, however, any African traits are ancient and from tropical Asiatic (Melanesian or Australoid) fringes or even of ancient Atlantic crossings by Africans.

EASTERN AND CENTRAL SOUTH AMERICA

Only in this century did the Portuguese finally win tremendous areas in the New World. Economic and political power was concentrated in the hands of great plantation owners in Brazil. By 1623 there were 350 sugar plantations in that country and 25 years later there were 150,000 to 200,000 civilized people, with 3/4 being Indian, Negroes or "Mixed". The state of Maranhao was created and Jesuit missions were established along the Amazon. In 1635 the Dutch invaded and occupied the whole northern part of Brazil and a little later they wrested the whole Gold Coast from Portugal. They were thrown out in 1654, but in the meantime, the locals had learned a great deal about sugar production from the Dutch. At the end of the century slaving operations in the interior of Brazil were being resisted by the Jesuits, who tried to protect the Indians.

Gold was found in 1690 in the central region of Minas Gerais, today one of the richest states in Brazil. A few years later diamonds were also found in the same region. (Ref. [87](#)) As in Central America, malaria arrived with the African Negro and yellow fever came only slightly later. (Ref. [88](#), [89](#), [90](#))

In central South America, east of the Andes, and in the more temperate southern zone were wide open lands suitable for sheep and cattle breeders. The original Gauchos, who were mixed Spanish and Indian and almost entirely lawless, preyed on those cattle, simulating in many respects the old nomads of central Asia of a thousand years earlier. (Ref. [91](#)) Since indigenous animals were few in what later became Argentina, the empty countryside was soon filled with European horses and cattle, which banded in wild herds across the great pampas and so existed until the 19th century. The Indians had some of those horses, too, so that the natives of Argentina and particularly the Araucanians of Chile continued to be tough adversaries for another two centuries. (Ref. [92](#))

Paraguay was founded by Jesuits in 1608. (Ref. [93](#)) It is of some interest that the first Europeans to sail around Cape Horn, instead of through the Strait of Magellan, were the Dutchmen Willem Corneliszoon Schouten and Jacob Le Maire and the cape was named after the former's birthplace, Hoorn. They were en route to Indonesia in 1615. (Ref. [94](#))

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1. This information is found in de Tocqueville (Ref. 4), pages 337 and 338).
2. Dobyns was a source mentioned by Wright (Ref. 19), page 24.
3. Quotation from page 30 of de Tocqueville (Ref. 33)
4. This is the date given by Alestair Cooke (Ref. 40), but de Tocqueville, quoting Beverley's History of Virginia, says the date was 1621. (Ref. 41), page 360
5. La Saile differentiated "savages" from Abenakis. The latter were also called Abnakis and MicMacs, of the Algonquin group. Their apparent differences from the other natives are of interest with respect to Fell's concepts recorded on page 269.
6. These were also lacking in colonial America. (Ref. 76)

America: A.D. 1701 to 1800

AMERICA

NORTH AMERICA

CANADA AND THE FAR NORTH

When Vitus Bering found the strait which bears his name he also explored the Aleutian chain of islands and the Alaska shores, living on sea otters and starting a new fur trade. By 1745 ruthless Russian hunters were established on Attu Island, where they killed all male Aleuts and took their women. Later, however, they found that they had to keep Aleut males to help them hunt the otters in their *ulluxtadags* (similar to Eskimo kayaks) with harpoons and they then merged and lived together with the Aleuts. In 1784 Grigorii Shelekhov established a settlement on Kodiak Island and founded what became the Russian-American Company. They obtained otter and seal pelts, using 7,200 Aleuts to hunt full-time and taking 300 others as hostages to ensure work from the first group. This broke up the Aleut families and then disease appeared, so that in the two generations at the end of the century, the Aleut population fell by nearly two-thirds. (Ref. 1, 2) Shelekhov was followed by Alexander Baranov, who greeted British ships and found English, American and even a few Spanish skippers had been trading for furs some 1,100 miles south. In 1799 he sailed along the shore with 450 two-man kayaks to establish a colony on Baranov Island, just 6 miles above a Tlingits Indian stronghold at what is now Sitka, Alaska. Those Tlingits had inhabited the lower coastal area of the Alaskan panhandle for a long period and had a high culture, living in gabled lodges housing a dozen families and producing canoes holding 60 men. One of their better known features were their 50 feet tall totem poles. North of the Tlingits were the Eskimoes along the

Arctic shoreline living, as the Aleuts on the islands, by hunting chiefly seals and walruses. In central Alaska were the Athabascan Indians, bearing no cultural resemblance to the coastal people. They are linguistic cousins of the Apaches and Navajos and lived in small nomadic bands in bare simplicity, existing chiefly on the caribou. They did create the snow-shoe to facilitate getting about in deep snow. (Ref. 3)¹

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They had a relative high standard of living with art, music, medicine, some surgery and mummification. After the Russians arrived the Aleuts were essentially enslaved and their numbers dropped to 3,200. (Ref. 4) It is interesting to note that before his famous voyages to the Pacific James Cook was an officer aboard the Eagle for 2 years after war started between England and France (1758) and then as master of a ship he charted much of the east coast of Canada between the years 1762 and 1769. He helped in the battle of Louisberg and Quebec on the St. Lawrence. (Ref. 5)

By 1745 when the Russians were already well established in the Aleutians, the English had only a handful of isolated trading posts west of Hudson Bay. (Ref. 6) On the west coast of Canada, Don Juan Francisco de la Bodega sailed the "Sonora" beyond the 56th degree latitude and examined the coast belonging to Russia,- which is now the upper of British Columbia. Then in 1778 while Captain Cook was sailing up the coast to reach the Aleutians, he incidentally discovered Nootka sound on Vancouver Island. Spanish historians claim, however, that Juan Perez had discovered this sound previously in 1774.

On the Atlantic side, in 1711 Britain attempted to take French Quebec and Canada, by sending seven regiments of Marlborough's best, along with 1,500 colonials into the St. Lawrence. Ten of their ships were sunk and the expedition failed. The war in Europe ended 2 years later, however, and France's position in southeastern Canada was greatly weakened by the Treaty of Utrecht, which terminated the War of the Spanish Succession, or Queen Anne's war, as it was called in America. (Ref. 7) France lost Newfoundland,

Nova Scotia and the Hudson Bay area to England and Canada as a whole was impoverished.

While thousands of sturdy Germans, French, Protestant Scots,

etc., were pouring into the English colonies, the government of Louis XV allowed only a mere trickle to go to Canada. The population of Canada in 1713 was only 18,119, although this had doubled by 1734. In the 30 years after 1713 the French spent \$6,000,000 in gold building a fortress on Cape Breton Island, which menaced English fisheries, but was useless in war time. They also built forts on Lake Champlain, at Niagara Falls and two on the Wabash. In 1744 the War of Jenkins' Ear with Spain merged into the War of the Austrian Succession (King George's War in America) in which England and Austria were allies against France and Prussia. The French and their Indian allies raided New England and the Iroquois raided Canada. The Treaty of Aix-la-Chapelle ended that war, with France retaining the Louisburg fort on Cape Breton Island. In mid-century the English settlers in Nova Scotia fought with the local French Acadians and the latter were deported in mass some 6,000 to 7,000 strong. Some ended up in Louisiana to become the "Cajuns". (Ref. 8)

The Seven Years War in Europe spilled over into the final French and Indian War in America (1755-1763) and the Peace of Paris signed the death knell for France in America. (Ref. 9) Quebec had fallen in 1759 and Montreal in 1760. (Ref. 10) The French people in southern Canada, however, continued a self-consciousness and intolerance, with their grievances carrying on to the present time. This was in spite of the fact that the British government, by the Quebec Act of 1774 guaranteed the French settlers free exercise of their religion, language and law (Old French civil law), as well as expanding the boundaries of the new Canadian colony to the Mississippi and Ohio rivers. This, incidentally, was interpreted as harmful to Virginia and Pennsylvania and was one factor, along with the Coercive Acts, in lighting the fuse for revolution in the lower thirteen colonies. (Ref. 11) Actually the British were not overjoyed with their conquest and tried to trade Canada back to the French, soon, in exchange for the island of Guadeloupe. *** (Page 1201)

Map taken from Reference 97.

The Canadian northwest was opened by Scottish merchants in slender canoes and by the French voyageurs. The fur trade reached its zenith in the 1790s. Montreal was the chief supply center with great loads of supplies leaving in flotillas of 30 some canoes, each 40 feet long and carrying 8 to 10 voyageurs. They would travel

1,600 miles, up the Ottawa River, then down the French River into Georgian Bay and the North Channel of Lake Huron, across Sault Ste. Marie into Lake Superior, then across the Grand Portage to the Pigeon River. In the western part of the route the canoes were a little shorter, at 25 feet, but they still carried 6 to 8 men and 1 ~ tons of cargo, while drawing only 18 inches of water. These northmen were French or mixed French-Indian and were small, not over 5'5" in height. They traveled on smooth water at 4 miles per hour, sometimes for 16 hours a day. Sled dogs and Indian wives completed their necessities. (Ref. 12)

In 1791 Parliament passed the Canada Act, dividing the region into Upper and Lower Canada, this roughly corresponding to English and French areas, respectively. For a quarter of a century there was peace. The Canadian Pacific coast had been ~ailed in the 1780s and in 1792 Captain George Vancouver explored and surveyed the region now bearing his name. Alexander Mackenzie went overland to the Pacific in 1793 as the first European to cross this continent, coast to coast. His route was by canoe west from Lake Athabasca, up the Pease River, portage across the Rockies to the Parsnip, then the Fraser, Blackwater and Bella Coola rivers, in turn, to the Pacific. (Ref. 13) He used Pemmican (Cree name for "fat") as part of his food supply. This was made by drying thin-sliced, lean meat over a fire, then pounding it to shreds and mixing it with an almost equal amount of melted fat, along with some marrow and a few handfuls of wild cherries (later currants or sugar were used), after which it was packed in rawhide sacks tightly sewed and sealed with tallow. This food supplied adequate calories for survival. An additional travel food was a dried corn meal pancake called "Johnnycake". (Ref. 14) By 1800 trappers and traders had crisscrossed the continent many times. (Ref. 15)

At the last of the century Spain was at war with Great Britain and in 1789 the Spanish Captain Martinez siezed 4 British ships in Nootka sound. This started a year's dispute terminated by a convention of October, 1790 in which it was agreed that all had a right to navigating and fishing in the Pacific and of making settlements there, but the British should not do so within 10 leagues of any coastal area already occupied by Spain.

Because of the warm Japan Current, much of the Canadian western coast land (and adjacent islands) is warm, with great forests and rivers teeming with salmon. The Haida, Kwakiutl and

Bella Coola Indians lived too easily there and had so much leisure time that they could create great native civilizations, with a culture expressed in wood-working, including magnificently carved totem poles, some 50 feet high and lodges as large as 3,000 square feet. They had sea-gray canoes holding 50 men. (Ref. 16) (See pages 269,374 and 568)

Meanwhile in the far eastern North American region, Danish missionaries and traders had brought fabrics, implements and some new foods to the Greenland Eskimos. Although the latter kept their old customs of using kayaks and harpoons for seal hunts, they now used guns for killing caribou. They lived in communal houses of stone and turf. (Ref. 17)

THE UNITED STATES

AREA OF ORIGINAL 13 COLONIES (AND FLORIDA)

The eastern colonies had 250,000 people at the beginning of this century. By 1750, including the 100,000 Negro slaves, the colonies were almost one-third as populous as England itself. (Ref. 18) By 1776 the population had increased to about 2 1/2 million. Patterns of migration changed during the century, with Scotch, Welch, Irish, Germans and Dutch arriving in ever increasing numbers. Some Scandinavians, Swiss, Belgians and French signed terms of indenture by the thousands in order to get to America. The mixture by 1763 has been estimated at 50% English, 18% Scotch and Scotch-Irish, 18% African, 6% German and 3% Dutch, thus already a "melting pot". (Ref. 19) Europe had no need for food products from the colonies, such as grain, meat and butter so these things were sold to the Caribbean and the bills of exchange so obtained were used for purchasing manufactured items from the British Isles. It was different with tobacco and even by 1723 some 200 ships carried 30,000 kegs a year to England, where it was re-exported to northern Europe. (Ref. 20) Gradually a few other products were shipped directly across the Atlantic. Just before the American Revolution, South Carolina sent more than a million pounds of indigo to England. (Ref. 21)

By 1733 there were 13 colonies but each had its own government, currency, trade laws and religious ways, so that they were actually like 13 nations. The middle colonies produced the most flexible societies, giving birth to the first real cities, with business men and ports and trades and yet were basically agrarian.

The planter society of the south was a fluid aristocracy, open to labor and talent, while New England was controlled by a Puritan oligarchy. (Ref. 22) New colleges were built at Princeton¹ and what are now known as Columbia and University of Pennsylvania. The first American newspaper was published in Boston in April, 1704. (Ref. 23) New York state was hampered in land expansion because of the Iroquois Confederacy land and it was only in 6th place in population as late as 1760. Boston ladies imitated the manners of the court of King James and all colonials were concerned with social status. Virginia society became stabilized with brave gallants, fair women, horse races and fox hunting. There was no middle class there because if one was white he was either of first family or a frontiersman. The colonies had rum distilleries, using molasses from the Indies and there was an iron industry in Virginia, in spite of English laws forbidding this, in 1750. By 1775 there were more furnaces and forges in the colonies than in England and Wales together. A most serious handicap was the English restriction on colonial use of money, forbidding the export of English coin to the colonies and prohibiting any local mint coinage. As a result the locals used Spanish milled dollars, or "pieces of eight", and paper money and bills of credit. In every colony south of Maryland, Negro slaves outnumbered white servants by 1720 and the proportion of blacks continued to increase. In Virginia in 1756 there were 120,156 Negroes out of a total population of 293,474. There were some slave insurrections, the chief one being the Cato Conspiracy in 1739. (Ref. 24)

As an American aspect of the War of the Spanish Succession at the beginning of the century, fighting developed between Carolinians and their Chickasaw allies against the Spanish in Pensacola, and locally this was called "Queen Anne's War". The Goose Creek men that we met in the last chapter continued their mischief in the 18th century. In 1704 the Barbadian, James Moore, and 50 Goose Creek men led 1,000 Creeks, Yamasees and Apalachicolas against the province of Apalachee. Missions and Franciscans alike were burned and Moore returned to Carolina boasting of having 4,000 women and children as slaves and an additional 1,300 who voluntarily joined with him. In addition, he killed or enslaved 325 men, not including the captives taken by his Indian allies. Perhaps 200 Apalachees escaped and fled westward to Mobile, where French padres put them in new missions and a few sought refuge near St.

Augustine. Moore and his Creeks and Yamasees charged on into Florida, ravaging Timucuan, burning their towns, plundering livestock and taking captives. Pensacola, 500 miles south of Charleston, suffered a similar fate and even the Keys were attacked by the Indians in canoes. Unable to protect them because of involvement in Queen Anne's War, Spain shipped hundreds of the Florida Indians, including the remnants of the Calusas and Tequestas, Apalachees, Guales and Timucuan, to Cuba. (Ref. [26](#))

In the meantime Carolina had some Indian troubles of its own. The Tuscaroras, of Iroquoian stock, occupied much of North Carolina's Tidewater and they had been traditional enemies of the Algonquian tribes. Probably because white colonists were allying themselves with the latter, the Tuscarora suddenly turned on the whites in 1711. For 2 years full scale war raged with the Tuscarora fighting both the colonists and some of the Algonquian tribes, who were supplied by Virginia and North and South Carolina authorities. Finally some 1,000 Tuscaroras were taken captive and sold. In 1714 a still more destructive war erupted, one somewhat erroneously called "the Yamasee War". Actually there were many natives in addition to the Yamasee, including Lower Creeks, Guales, Apalachees, Savannahs, Cherokees, Yuchis, Cheraws, Catawbas, Waterees and Waccamaws who attacked the whites. Some played greater roles than others. Many of these tribes were components of the old Chiefdom of Cofitachiqui and in a way this was the native response to the commercial empire of the Goose Creek men. Losses on both sides were high - 400 colonists perished, some 6% of the white population. On the Indian side, many of the participating tribes simply became extinct. Port Royal remained deserted for years. Generally disorganized, the colonists revolted against proprietary rule in 1719 and claimed South Carolina a royal colony.

Even before their war on the colonists in 1711 the Tuscaroras were the most powerful nation in the North Carolina Tidewater and for years they had fallen on their weaker neighbors and sold captives to the Virginians and North Carolinians. Slave raids, wars and especially diseases eventually swept away almost all Timucuan, Apalachees, Tequestas and eventually even the Yamasees. Some Lower Creeks remained in Florida, destroying and mixing with aboriginal remnants of other tribes and by the latter third of the 18th century - these Indians became known as

Seminole. The Creek Chief Cowkeeper, who settled in the Gainesville region, according to some, is the progenitor of the Seminole nation. (Ref. 27) (See also page 1015)

Europeans customarily branded slaves and this was carried on in the United States. In 1716 commissioners in charge of the Carolina Indian trade sent branding irons to agents in the back country to mark deerskins and captives, alike. The latter were marked on the face, shoulder or arm. Through this 18th century tens of thousands of southern Indians were enslaved and most of these were women and children. Indians worked for whites as wage laborers, tilling fields, rounding up cattle and as domestics, hunters and artisans. pamunkey women worked as maids. Many female Indian servants murdered their offspring, either to escape a whipping, an increased period of service or perhaps just to keep their children from growing up in an alien world. The men sometimes carried peltry for 200 or even 500 miles for the Goose Creek men. In excellent physical condition, some of these Indian men impressed the colonists by keeping up with a man on horseback for 10 or 20 miles, apparently without fatigue. They learned new occupations such as serving on board oceangoing vessels and learning to care for and ride horses. Each village was apt to have a resident factor, an Englishman or more likely a Scot, but some factors were Indians, mestizos or occasionally blacks. The natives' appetite for trading goods and drink exceeded their ability to pay and they were frequently in debt. (Ref. 28)

At the beginning of the century Anglicans redoubled their efforts to send missionaries among the Indians to learn their languages and establish schools. The Society for the Propagation of the Gospel in Foreign Parts (SPG) was founded for that purpose in 1701. The Archbishop of Canterbury was a founder and colonial governors and commissaries were members, as were laymen on both sides of the Atlantic. Inevitably there developed a close association between SPG and English imperialism. There was little distinction between extending the flag and spreading the faith. A search was made to find a lingua franca which could be comprehended by most southern Indians. An Algonquian tongue spoken by the Savannahs (Shawnees) was considered, but the Muskogean Yamasee was better as it could be understood throughout much of the south as a second, if not a first language. Schools were established, including one in connection with William and Mary College, but there were

never many in attendance and little was really accomplished. In the long run the SPG was most successful with Mohawks in upper New York, where missionaries did conduct services in the Mohawk language. We have mentioned the Yamasee rebellion in the latter half of the century, after which those Indians were implacable enemies of the British as long as any of them survived. The SPG was shocked. (Ref. 29)

After 1715 the two largest Indian tribes adjacent to South Carolina were the Creeks and Cherokees and there was some attempt to Christianize them. A German, Christian Priber, a versatile scholar and lawyer conversant in several languages, went to live among them, dressed as a native, learned their language and tried to establish a socialist community on the frontier. He educated the Indians, explaining how traders' scales, weights and measures worked so that the British colonists assumed he was a French agent trying to turn the natives against them. They sought him out and imprisoned him.

Except for the Floridas, which Britain acquired in 1763 and held for 20 years, Georgia was the last southern colony, founded in 1733, more than 60 years after the birth of Charleston. After 10 years of Trustee rule, Georgia's white population was at most 3,000, but on the eve of the Revolution, Georgia contained 18,000 free whites and almost as many slaves. The original trustees did have ideals,- however, including the prohibition of drinking, the outlawing of Negro slavery and some restriction on the size of land holdings. This did not keep the Georgians from using Indian slaves, however, and by 1750 the trustees legalized all types of slavery. James Oglethorpe was the only trustee who actually went to Georgia and he appointed Charles Wesley his secretary for Indian affairs and John Wesley as an ordained missionary of the SPG. John decided to go into the Chickasaw country to learn their language and customs, but various complications kept him from accomplishing that and his ministry was not successful. Oglethorpe persuaded the Yamacraw chief, his wife, nephew and a handful of others to return with him to England in 1734, where the Reverend Samuel Smith instructed them in the Creed, the Lord's Prayer and the Commandments. This was about the extent of the Georgia conversion.

We shall return to the traditional history of the American colonies, the problems in the "Old Northwest", the French and

Indians War and finally the American Revolution at a later time, but feeling that school texts have overlooked much material about the southern Indians and their relationships with the whites and imported Africans, we shall devote a few additional paragraphs to these subjects. At times the Indians cooperated with the British, as when Creeks, Yamacraws and Cherokees helped Oglethorpe in battles with Spanish troops, who attacked St. Simons Island in 1742. Natives crewed the scout boats used for communications along the chain of sea island forts and they raided Florida, killing or capturing unwary Spaniards, Yamasees and Negroes. At other times the Indians fought the colonists, but in between there was considerable merging of red, white and black races.

In this 18th century Creeks constituted one of the largest racially heterogeneous tribes. Other more or less "pure-bred" tribes, such as the Catawbias, had existed, but now there were only a few hundred of them left and the Catawba language had been lost. Various Catawbias conversed in assorted tongues belonging to several different language families. The first mention of the term "Seminole" was in 1771 and it was probably taken from the Spanish *cimarron* (wild) which became *simanoli* in Chickasaw. Lower and then Upper Creeks drifting into Florida formed the nucleus of the Seminole "nation", with a few remnants from earlier days - Calusas and Tequestas. (See also page 1013). There never was a unified Seminole nation and those Indians then, as today, did not necessarily understand one another. The Lumbees of southeastern North Carolina offer an even more bizarre grouping. Numbering still some 40,000 today, they constitute one of the largest tribes in the United States, but actually they are an aggregation of diverse remnant tribes and also blacks and whites, having geography more than anything else in common. There is no Lumbee language.

It is thus apparent that the mixtures that developed among the southern Indians was not entirely one of intermingled tribes, as the whites mixed with the natives on a much grander scale than some care to admit. A considerable number of colonists married Indians and reared families and then, of course, the packhorsemen and factors, living for extended periods among the Indians, formed unions with native women. Many of the tribes had cultures which condoned premarital sex for the young Indian girls. Such a large mestizo population emerged that great numbers of 18th century "Indian" chiefs had such names as McDonald, Perryman, Colbert,

Brown, etc. It wasn't long before the natives and the whites and mestizos living among them began to insist that they owned their lands outright and that in every respect they inhabited a sovereign, independent nation. Attempts were made to reestablish centralized states, yet no chief spoke for a unified Cherokee or Creek nation and colonists repeatedly took advantage of this to obtain lands. Many of the tribes were ethnic melting pots. The terms Creek and Muskogee did not even appear until this century. Creek or Muskogee, the primary language, in all probability was not a first language or perhaps even understood by a majority of the Creeks. Lower Creeks, a major part of the confederation, themselves composed of different ethnic groups, for the most part spoke Hitchiti, which was unintelligible to those speaking Creek proper.

At any time, in the last century or through this one, whenever whites destroyed Indian granaries and cut down their corn, the effect was devastating. Survivors fled to the woods, where many starved, as they were not as at home in the woods as their hunting and gathering ancestors had been. The Cherokee Chief Vann was driven from his village during the revolution and was forced to scratch for subsistence in the wild. All of these Indians were basically agriculturists. Although small amounts of wheat and rice were grown, maize remained the staple and was prepared as cornbread and hominy, or after being boiled with oak and hickory ashes, was drunk as a kind of soup, which the Creeks called *sof kee*. Late in the century sweet potatoes were developed. Fields were fenced and cattle, horses, sheep, goats, hogs and chickens were available. The Upper Creek Chief Wolf owned 200 head of black cattle and Indians in other villages had even larger herds. A few years after the Revolution, William Augustus Bowles brought a large supply of munitions and presents for the Creeks from the Bahamas, but they had to come to the coast to get them. They had no difficulty in assembling more than 100 pack horses outfitted with saddles and halters had led them nearly 400 miles overland to pick up the goods. Of course, horse stealing became as prominent as raising, buying and selling. (Ref. 30)

Although scalping was a long time custom among Indians, the usage increased after white contact and was more prevalent around the time of the American Revolution than ever. Mississippians were not true cannibals, but for ritualistic purposes at times did eat human flesh. Like the Indians, British colonists also drank yaupon

tea and some was even exported to Britain and France. Europeans took over a great many Indian medicines and cures and a considerable portion of southern white and African folk medicine is of aboriginal origin. The Indians were also the source of many new words such as moccasin, matchcoat, terrapin, opossum, raccoon, chinquapin, chum, hominy, pone and tomahawk. The terms for racial hybrids have been confusing. A 1705 Virginia statute says that a mulatto is the offspring of whites and non-whites, that is - the child of an Indian and a white, or the child, grandchild or great-grandchild of a Negro and a white. A South Carolina missionary in 1715 baptized as a mulatto a girl whose mother he reported as an Indian and father as a white trader. At other times "mulatto" seemed to mean Negro-Indian mixture, but finally the term *zambo* was used for that hybrid. A significant percentage of the Yamasees themselves were zambos and during this 18th century that tribe became increasingly noted for its Negroid features. In spite of the statutes, Africans and Indians intermingled, learned each others' languages, intermarried and at times made common cause against whites. Mestizos properly may mean Indian-White, but has also been used for all kinds of combinations. (Ref. [31](#))

Regarding slavery, the status of white convicts arriving in Chesapeake Bay whose terms might be up to 14 years or even life did not differ greatly from that of chattel slaves. White, black and Indian slaves were all marketed and employed with little distinction, except for the one difference that most Indian slaves were female. The male Indians would run away and were difficult to manage, so most of the field hands were young, male blacks.

All the slaves were kept together in compounds and it was inevitable that much mixing took place. At times Indians owned African slaves and vice versa. The 1725 census in St. George Parish, South Carolina discloses that the Indian Nero possessed one Negro black slave and the Indian Sam Pickins owned six. In turn Negro Robin Johnson owned 9 slaves, all of whom apparently were Indians. Alexander McGillivray, a mestizo Upper Creek, died in 1793, leaving a considerable estate, including 60 Negro slaves.

In time most southern Negroes adopted, at least in a modified form, the white man's religion and the evangelical sects won more converts than the staid Anglicans. Another change occurred in the Negro culture after they came to America - they dropped the patrilineal society of Africa and became matrilineal. There were

probably several factors in this, but one was certainly the matrilineal culture of the southern Indians. A handful of surviving Christian Indians abandoned Florida in 1763 when the British took over, retiring with the Spaniards to Cuba or Mexico. Although a few Catholic converts still remained among the Florida Indians when that area was restored to Spain in 1783, no effort was made to re-establish the missions and no Catholic Indians remain today. Any remnants had been absorbed by the emerging Seminoles.

THE MISSISSIPPI REGION, THE "OLD NORTHWEST, AND THE FRENCH AND INDIAN WAR

Frenchmen were at the upper end of the Mississippi watershed and Detroit was founded by Sieur Antoine de la Mothe Cadillac in 1701 as a fort to control the entrances to Lakes Huron and Erie. There were Indians all over the eastern part of what we now call the Midwest. The Shawnees, who were known in the south as Savannahs, were at various periods widely dispersed, but by 1725 most of the southern bands had rejoined their kinsmen in Pennsylvania. Pressure there from the expanding white frontier and the Iroquois slowly pushed them westward, where they established new villages in the Wyoming and Susquehanna valleys. During the second quarter of this 18th century part of the tribe again moved south, seeking refuge among the Upper Creeks in Alabama, while the majority was settled in mid-century along the Scioto River in central Ohio. They were surrounded by a great many other tribes, including the Liams, Potawatomis, Delawares, Wyandots and Senecas. (Ref. 32) In the territory now known as the State of Illinois, there were herds of 400 to 500 buffalo seen frequently even as late as 1792, but within 5 years of that time they were all gone, driven across the Mississippi by hunters and domestic farming activities. (Ref. 33) With them went the Indians. In Minnesota, Chippewa and Sioux fought over the wild rice stands in the northern lakes in mid-century. (Ref. 34) The Sioux moved into the South Dakota area as nomadic horsemen with a far different life style than the original valley farming Indians, whom we have described there from the 10th to the 14th centuries. (Ref. 35) They had received their horses indirectly from the Spaniards in the southwest.

In the lower Mississippi region in 1713 St. Denis, from French Biloxi, settled Natchitoches as the oldest city in Louisiana. Near

there were a series of small Indian states, including the famous Natchez, perhaps the last inheritors of the Mound-building tradition. There were perhaps 4,000 Natchez people left at the beginning of this century, living in 7 villages clustered near the present city of Natchez. Their social structure included a chief, the Great Sun and his relatives, known as Little Suns. A step below were nobles, then groups of Honored Men, a class achievable by anyone through distinguished action in war or religious devotion and finally the Commoners or Stinkards. Each Sun and Noble, however, had to marry a Stinkard, so there was a constant social turnover. These Indians attacked French Louisiana colonies in 1729, killing 200 and taking women, children and black slaves as prisoners. When they revolted against the French again in 1734, however, within a few years almost none remained alive. The French commanders disposed of a thousand captives in the West Indies. (Ref. 36, 37)

Throughout the century whenever England and France were threatening each other or at war in Europe, the Canadian French made sporadic raids on the frontiers of New England and vice versa. At the end of the 1740s the French took an expedition down the Ohio River and buried lead plates to mark their territorial possessions. Then in 1754 they destroyed a rude English fort at the crucial spot where the Monongahela and Allegheny rivers meet (near present Pittsburg) and built their own Fort Duquesne. At 21 years of age George Washington had his first taste of battle against the French as they moved out of that fort in 1755 at the opening of the true French and Indian War. General Braddock and his English forces were badly defeated by the French and their 1,000 Indian allies.

The victory brought almost all the Indians of the old "northwest" to the French side. This was the American aspect of the Seven Years War but it was a frontier war, strange to the British and they suffered atrociously in the mountains and forests from Indian guerrillas and in the pitched battles they were out-manuevered. After six years the English did take Quebec and Montreal and the fighting ended. In the Treaty of Paris, three years later, Canada and the whole empire of France in the interior United States were transferred to England. We have noted previously that in the same treaty Florida was taken from Spain, who had come in too late and on the wrong side. The Spanish did acquire La Salle's vast, vague

region of Louisiana, however, from the French. (Ref. 38)

The Old Northwest was the territory about the Great Lakes and between the Ohio and Mississippi rivers. By 1750 the Shawnees of that area were divided into five semi-autonomous political units or bands, each occupying a special place within the tribal confederacy. The Thawegila and Chalahgawtha bands supplied the leaders for the entire tribe, but all the bands took an active part in the French and Indian Wars, most of them supporting the French. Some of them fought beside Captain Daniel de Beaujeu as they cut the British column to pieces in the battle near Fort Duquense. During the next 4 years they joined bands of Delawares to raid the English frontier in Pennsylvania and Virginia. After the fall of Quebec, however, most Shawnees withdrew from the warfare, at least for the moment. The Treaty of 1763 did not give absolute peace on the frontier. In that very year Chief Pontiac of the Ottawas along with some Wyandots, Potawatamis and Ojibwas, attacked and then besieged the fort at Detroit from May until November². Inspired by that, the Shawnees again attacked into eastern Ohio and West Virginia, killing settlers and burning farms. They sent runners as far west as Illinois, urging the tribes of the Wabash Valley to attack British forts and traders. Actually the Shawnee anger was directed at the "Virginians" - those whites trying to occupy Kentucky. (Ref. 40)

Cumberland Gap is a 1,665 feet elevation pass through the Appalachian Mountains lying at the border of Kentucky, Tennessee and Virginia, long known to the Indians, but discovered for the Virginia Land Company by Dr. Thomas Walker in 1750 and named for the Duke of Cumberland. From the pass trails fan out to the south and west so that somewhat later a veteran of the French and Indian Wars, Daniel Boone, made this a highway to the promised land of the west. The so-called "Wilderness Road" was nearly 300 miles long, ending at the Ohio River at Louisville and within 15 years, at the end of the century, 100,000 people had traversed this trail to western Tennessee and Kentucky. Mostly unlettered, these people needed a good gun, a good horse and a good wife, along with good health, good luck, an axe and salt. Most had to carry their salt over the mountains, but at Boone County, Kentucky was a huge brine lake, which incidentally was also a great archaeological find, with a graveyard of mastodon bones. The salt licks were also used by the Indians and this immediately helped to initiate hard

feelings early in the settlement of the area.

During the six years of the French-Indian War, the British got an education and became aware of the fact that they needed to overhaul their imperial system and strengthen their central authority. Previously all relation of England to the colonies was on the basis of a commercial empire, on the theory that the colonies existed solely for the benefit of the homeland and that in return the homeland owed them protection. Although the Acts of Trade and Navigation had been passed by Parliament in 1651 they had not been enforced until this century. These Acts called for exclusive navigation, in that all commerce had to involve only British or colonial ships and the "Entrepot Principle" which meant that foreign trade should normally be conducted through the mother country. After the war just discussed, England began to pass constricting laws, new taxes and new army conscriptions from the colonies themselves. This shocked the Americans. First came the Stamp Act, innocuous enough in itself, but infuriating to the colonists and soon repealed at the insistence of William Pitt. But then came George III and Lord North, with still more repressive laws and taxes and a show-down became inevitable. (Ref. 41) (Go to 1140 & 1153)

FACTORS LEADING TO THE AMERICAN REVOLUTION

1. Enforcement of the Sugar Act³ of 1733 by William Pitt in 1760. Early Americans, like most Europeans of the day, preferred to drink almost anything in preference to water and the New Englanders made everything from poor whiskey to pumpkin beer, maple syrup and persimmons to apple-jack. But soon the main drink in the colonies was rum and the yearly consumption was 3 3/4 gallons per person, including women and children. Some believe that the Sugar Act which imposed a heavy tax on both sugar and molasses (if they came from anyplace but the British owned Caribbean Islands) was more important in the declaration of independence than the tea tax, because the rum trade was based on molasses. The rum was felt to be important, not only for the local consumption but because the New England shippers could exchange rum for slaves in Africa, then trade the slaves in the West Indies for more molasses, which was taken back to the colonies to make more rum. Alcohol was a mainstay of 18th century America. When George Washington

was campaigning for the Virginia legislature in 1758, his agents doled out almost 3 3/4 gallons of beer, wine, cider or rum to every voter and Washington was afraid this would not be enough. (Ref. 42)

2. The Iron Act of 1750 prohibiting colonists from manufacturing iron products, but allowing them to develop their ore deposits for exchange in England for the manufactured pieces. This was the classic mercantilism of the British colonial system, using colonies to produce raw materials, which the mother country could process and sell back. This law was generally ignored by the Americans
3. The Garrisoning of 10,000 British troops, and this chiefly in cities, rather than on frontiers where they were needed
4. The Revenue Act of 1764, to raise money to defray the expense of troops "defending the colonies". This act put duties on foreign sugar, European luxuries and limited some exports
5. The Stamp Act of 1775. This was the first direct, internal tax levied on the colonies. Every type of legal document, even such as college diplomas, was heavily taxed and payable in sterling. Every copy of newspapers, each advertisement in papers, etc. was taxed. Riots against enforcement officials began immediately. A middle-class organization, "Sons of Liberty", sprung up in every seaport and kept the courts from acting, thus nullifying the law. It was repealed by a new administration in England in 1766
6. The Townshend Act of 1767. Avoiding an internal tax, which the colonists thought unconstitutional, this levied duties on certain English manufactures entering America - paper, glass, paint and the East India Company's tea. The culminating blow was a whole new customs regulation organization to enforce this, using Admiralty Courts to try cases under the Acts of Trade and Navigation, without a jury. The Townshend duties were repealed in 1770, except for tea. It was at that time that Samuel Adams, a middle class Bostonian, began to lead opposition as a Boston "radical"
7. Land Grievances. There were brawls in the back-country from New Hampshire to South Carolina over land boundaries, land companies and the like, with resulting grievances of frontiersmen against the establishment on the coast. All felt their problems had no attention in Parliament. The Boston Tea

Party of 1773. The Sons of Liberty, dressed as Indians, boarded three, unloaded tea ships in Boston Harbor and dumped the cargo into the sea. This was a protest against the tax on tea and it had the calculated effect of irritating the British government into unwise acts of reprisal. This is what Sam Adams wanted

8. The Coercive Acts of 1774. The Boston Port Act virtually blockaded Boston until it paid for the dumped tea. The Administration of Justice Acts chastised Massachusetts, making councilmen, judges, sheriffs, etc. all appointees of the king. The Quartering Act empowered royal governors to commandeer houses for soldiers. It should be noted that many old Whigs and merchants in England opposed all of these Acts

One of the first skirmishes of the revolution took place in Boston in 1770, when colonists and British troops exchanged shots in the so-called "Boston Massacre". Three civilians were killed and two more died later, including a black man, Crispus Attucks. Who fired the first shot or threw the first stone? Following this episode a revolutionary conspiracy and a colonial underground was formed by James Otis, a Whig lawyer and scholar, and Samuel Adams, the genuine rabble-rouser. They formed committees of correspondence running clear down to South Carolina. In Virginia the headquarters were in a tavern and members included Patrick Henry and Thomas Jefferson. (Ref. [43](#))

The first Continental Congress met on September 5, 1774 at Philadelphia with 55 members chosen by revolutionary conventions in 12 continental colonies. The Congress issued the Declaration of Rights and an agreement called "The Association" - a non-importation, non-consumption agreement regarding imports from Britain unless the Coercive Acts were repealed. The first true fighting of the war occurred in April, 1775, when General Gage set out to Concord to destroy patriot munitions. The famous stories of Lexington and Concord and later Bunker Hill, etc. are sufficiently well known by all to not require repetition here. Politically, the next step was the Second Continental Congress, which met in May of 1775. At about the same time Parliament passed an act prohibiting all manner of trade and commerce with the colonies. The latter countered with the Declaration of Independence in July, 1776, worded chiefly by Thomas Jefferson.

FEATURES OF THE AMERICAN REVOLUTIONARY WAR

The war was actually not popular in America. The army was chiefly infantry regiments named after various colonies, where they had been recruited. Every line regiment had Negroes. The colonies could have provided a regular army of 100,000 but they could never have fed and clothed so many. The greatest number of men at any one time was 20,000, in 1778. Washington's army went hungry because of reluctance of farmers and merchants to exchange food and clothing for a Continental chit. The chief source of food was Connecticut, through actions of Governor Jonathan Trumbull.

Financing of the Revolution

1. Foreign loan. 6.4 million dollars were borrowed from France, in addition to a direct grant of 2.6 million. John Adams got an additional loan from the Dutch
2. Domestic loans. 20 million dollars were raised by both interest bearing bonds and certificates of indebtedness for goods received
3. Requisitions in money or in kind, apportioned among states in proportion to the estimated population

All loans, domestic and foreign and the states debts were later repaid at par. The local currency depreciated, but a later French loan negotiated by Robert Morris saved the day.

Alistair Cooke (Ref. 44) asks the question: "How did a rag-tag army defeat one of the crack armies of Europe?" And then he gives the following answers:

- Weaponry. The British used smooth-bore muskets that allowed a lateral error of 3 feet at 100 yards and used for mass "spraying" of close order troops. In contrast the American frontiersmen used the Pennsylvania flintlock, with double the barrel length and grooves (rifling) to make the bullet spin and stay on line They could put a ball in a man's head-at 150 to 200 yards
- Guerilla hit and run warfare
- The choice of Washington as commander in chief, as this brought Virginia into the war
- The idealism of Ben Franklin and Thomas Jefferson spread among the people

One might add a 5th factor in the American victory - the difficulty of the British in supplying an army of 90,000 soldiers an ocean away from their homeland, as after 1775 the Americans had pretty well prevented British troops from access to local supplies.

Under the circumstances the British navy did a good job, but in January 1779 the Red Coat army in New York had only 4 days rations left when a relieving fleet arrived. (Ref. [45](#))

The final battle of the war occurred in 1781 at Yorktown. General Cornwallis was already under siege with Washington's troops on land; then the French navy bottled him in⁴. In 1782 there was still occasional fighting in the west, where the British had Indian associates and this will be discussed a little more in a later paragraph. The Peace of Paris of February 3, 1783 involved Great Britain, France, Spain, the Netherlands and the new United States, with the latter winning territorial rights west to the Mississippi, north to Canada and south to the Floridas. The British did retain Newfoundland fishing rights and free navigation on the Mississippi. Spain wanted Gibraltar, but settled for the return of Florida.

After the war, there was still not a nation but a group of independent countries. Within four years the Union was close to bankruptcy and strong leaders were not in sight. About 1/3 of the people in this new "nation" were Tories, who had remained loyal to England during the war. Pennsylvania and South Carolina were generous and compassionate with these people, but other colonies reacted much differently and great numbers of Tories were exiled to Canada, the West Indies or back to England. Immediately after the termination of fighting various states started to draw up declarations of rights and constitutions. The Virginia Declaration of Rights was one of the great liberty documents of all time.

Articles of Confederation had been drawn up as early as November, 1777 by a Congress designed to preserve the independence and sovereignty of the states. There was a considerable revival of commerce between 1782 and 1789 and some literary activity, as evidenced by the publication of Webster's Dictionary by Noah Webster. But all was not completely peaceful - in Massachusetts a revolt of poor farmers against the courts, who were prosecuting debtors was called "Shay's Rebellion". The situation was alleviated when some new legislators were elected.

Besides having European nations treating it with contempt, the new nation was scarcely able to contain the Indian tribes and to pay

the interest on the Revolutionary War debt. It was on the brink of collapse when Congress appealed to the people for a new constitution. (Ref. 47) Finally delegates did meet in the so-called Constitutional Convention in 1787. The problem was not to give the states anything, but to take some existing powers from them. (Ref. 48) Sam Adams, Thomas Paine, Patrick Henry⁵ and others of the "Pamphleteers" group were not present. As Cooke (Ref. 49) puts it - such men "love the bonfire, but find the rebuilding something of a bore". Alexander Hamilton wanted a lifetime chief executive, a lifetime senate of property owners and in effect wanted to extinguish the states altogether. His opposite was George Mason, a 62 year old, uncompromising democrat, who was about 1/2 century before his time. He called himself a radical republican and argued long and hard for individual liberties such as he had engineered previously in the Virginia Bill of Rights. Between these two extremes was James Madison, 36 years old, also from Virginia, but with a middle ground approach that led to the final constitution. The solution was compromise and at the end even Hamilton helped to publicize and get the document approved.

Some additional information concerning the Constitutional Convention can be found in "Documents illustrative of the Formation of the Union of the American States", published for the Library of Congress by the Government printing office in 1927. (Ref. 51) The following contains excerpts from that source:

From the notes of William Patterson of New Jersey, while preparing a speech for July 9, 1787 we find this information about the populations of the various states:

1. New Hampshire-- 1774 --100,000
2. Massachusetts -- 1774 -- 400,000
3. Rhode Island -- 1783 -- 48,538 Whites and 3,331 Blacks
4. Connecticut -- 1774 -- 192,000 Whites and nearly 6,000 Blacks
5. New York -- 1786 -- 219,996 Whites and 18,889 Blacks
6. New Jersey -- 1783 -- 129,000 Whites and about 10,000 Blacks
7. Maryland -- 1774 -- 350,000 (Estimated) with 3/7 Blacks - 150,000
8. Virginia -- 1774 -- 650,000. (This apparent⁴ as a total, because he writes then - Blacks as 10 to 11 - 300,000⁶

The Congress early wrote an Ordinance for the Government of the territory of the United States Northwest of the river Ohio and it contained, among others, the following interesting features:

- "Article III --The utmost good faith shall always be observed toward the Indians; their lands and property shall never be taken from them without their consent; and in their property, rights and liberty they never shall be invaded or disturbed unless in just and lawful wars authorized by Congress
- Article VI - There was to be neither slavery nor involuntary servitude in the territory, but escaped slaves were to be returned to owners in the original states

In the convention there was much discussion about slavery. Mr. John Rutledge of South Carolina said that religion and humanity had nothing to do with this question and that it was a matter of "interest". "If the northern states consult their interest, they will not oppose the increase of slaves which will increase the commodities of which they will become the carriers." Mr. Charles C. Pinkney of South Carolina added that South

Carolina could never receive the plan (Constitution) if it prohibits the slave trade. He further stated that the entire world had had slaves - Greece, Rome and other ancient states - and that slavery had been sanctioned by France, Holland and other modern states. "In all ages one-half of mankind have been slaves." (Ref. 53)

Thomas Jefferson was not present at the Constitutional Convention as he was serving as Minister to France at the time, but it will be worthwhile to consider at this time a few more details about that most remarkable man. He was a Greek and Latin scholar, geologist, musician, astronomer, meteorologist, archaeologist, anthropologist and gardener extraordinaire, as well as statesman and lawyer. (Ref. 54) His father was a Welshman with distaste for English rule, although already a third generation colonial. As a young man Thomas was accused, rightly or wrongly, of many indiscretions with married women and finally married a rich widow with a child, only to soon take a mulatto slave as his concubine⁷. His house slaves alone numbered 25. He loved fine wine, blooded horses and exotic orchids, all of which he kept at Monticello. He preserved a legacy of over 25,000 letters from friends and acquaintances and copies of his own letters that numbered some

18,000, all indexed. In spite of meticulous record keeping, however, when he died he owed over \$100,000. He befriended the Shawnee Indians and talked against slavery, having introduced a bill in the Virginia legislature at age 24 to permit emancipation by free choice of the slave holder, but the bill was defeated. He wrote about and compared Whites, Blacks and Indians, giving certain features to all, some good, some bad, but was remarkable liberal for an 18th century Virginian, where there were 10 blacks for every 11 whites. During the war, Virginia never officially permitted slave enlistment. Nevertheless, free blacks numbering about 500 did fight as soldiers and sailors by November 1777. Thousands of other Virginia slaves, however, fled to the British side, including 22 of Jefferson's own. Other colonies lost slaves also; 4,000 from Savannah, 6,000 from Charleston, 4,000 from New York and thousands more were carried off by the French.

Jefferson was enthusiastic about the new inoculation against smallpox that became available near the end of the century, although the more religious people were upset about it, still claiming that illness was a manifestation of God's intention, if not a punishment for sin. Jefferson, himself, was a deist. John Adams and Jefferson were once great friends, but had a falling-out chiefly over the French revolution, which Jefferson supported. In addition there was a great rivalry with and finally hatred of the younger Alexander Hamilton, a bastard son of a wayward descendant of a French Huguenot in the West Indies and a Scotsman, 4th son of a Scottish laird. Although it was common knowledge that Hamilton was a womanizer, he married into a rich, Dutch patroon family along the Mohawk. He seemed to cherish a monarchy and wanted to make the childless George Washington a king, with himself as the chosen heir. (Ref. 56)

As is well known, after the Constitution was adopted the new government commenced to function in 1789 with George Washington as the first president and John Adams as vice president. John Jay was chief justice, General Knox secretary of war, Edmund Randolph attorney general and upon his return from France, Thomas Jefferson became secretary of state. Any enthusiasm for emancipation of slaves in Virginia was rapidly cooled by the news of the Santo Domingo rising of the blacks under the Jamaican voodoo priest, Boukman and Toussaint L'Ouverture. (See the next section, please). As secretary of state, Jefferson was a states' rights

and southern policies advocate, who was favorable to France.

Map taken from Reference 97

His associates formed the Republican Party of that time (later to become the present day Democratic Party). The real power of the first administration, however, was the secretary of the treasury, Alexander Hamilton, who favored Britain over France and whose policies led to the establishment of the Federalist Party. The United States navy had to be rebuilt in 1794, stimulated by piracy of the Barbary corsairs and some troubles with the British navy.

As John Adams became president with Jefferson as vice-president in 1797 naval war with France loomed on the horizon. The aggressive and subversive French Directory let French privateers loose against the American merchant fleet and by June more than 300 American vessels had been captured. The Federalists felt that France was a great menace and that England was the only barrier against France's ruling of the world. An American negotiation mission arrived in Paris just after Bonaparte had beaten Austria and the Directory was at the height of power and arrogance. Talleyrand, the minister of foreign affairs, was insufferable and tried to bribe the commission. When reports of this reached home, President Adams and Congress created a navy department, navy yards were purchased and an ambitious program of naval construction was undertaken. By the close of 1798 some 14 American man-of-war ships were at sea and transatlantic shipping was being protected every place, with the help of an arrangement with the British navy. The first test battle was off Nevis Island in the Caribbean, where the U.S.S. Constellation fought for an hour and won over the crack French frigate L'Insurgente. This helped the Federalists to win a strong majority in the 1798-1799 Congressional elections. But Talleyrand changed his approach, saved face and full war did not occur. Nevertheless, there was a rebirth of the U.S. Navy and at the end of hostilities, there were 54 American warships.

As the century ended in 1800, Jefferson ran for president. It is interesting that clergymen were against him. He felt that both the Episcopalian and the Congregational churches hoped to be named as the established Church of the United States, but he had "sworn upon the Altar of God, eternal hostility against every form of tyranny over the mind of man". (Ref. [57](#))

We must return to events west of the Appalachians during and

after the American Revolution. Shawnee hatred of the Virginians virtually assured that the former remaining in Ohio would oppose the colonists during the war. In January 1778 a war party from the Chalahgawtha (Chillicothe) village captured Daniel Boone and some companions at the Blue Licks on the Licking River. Boone later escaped, but all through the summer of 1778 Shawnee warriors fell upon Kentucky settlements, burning, capturing horses and taking scalps. Such raids and counter attacks by such as Colonel John Bowman's 200 mounted volunteers continued through 1779. Although few Indians were killed, the Americans captured many horses and much Indian property. Somewhat demoralized, many Shawnee tribesmen retreated down the Ohio and eventually crossed the Mississippi, establishing new villages in what is now Missouri.

White settlers crowded into Indian lands in southern Ohio and the remaining Shawnees turned to British Indian agents, who assured them that they still owned their lands. Hoping to forestall more bloodshed, the United States negotiated a series of treaties with the Iroquois, Wyandots and other tribes during 1784 and 1785 and assembled a delegation of Shawnees at Fort Finney in January of 1786. American agents told these Shawnees that they must give up their land claims east of the Miami and acknowledge the sovereignty of the United States over all their villages. The Indians were astonished, but under threats of destruction of their women and children, Kekewepellethe and other Shawnee leaders, signed the documents, but they soon lashed out again at white settlers in southern Ohio. Two federal expeditions were sent out against the Shawnees - the first under General Josiah Harmar and the next under Governor St. Clair, who had almost 2,000 regulars, militia and volunteers. The Shawnees with Miamis, Potawatomis, Delawares and other allies, killed over 630 Americans and the latter had to admit disaster. During the spring of 1794 the British built a new Fort Miamis at modern Toledo⁸ Thinking that was a sure indication of British military assistance, the Shawnees dared the American to come again and more warfare seemed inevitable. The new leader of the American forces, "Mad Anthony" Wayne, however, had spent two years training an army and on August 20, 1794 this army swept through Shawnee barricades at Fallen Timbers, Ohio and crushed the Indians. They had no choice but to make peace and on August 3, 1795 signed the Treaty of Greenville, in which they exchanged most of their former homeland for a few

trade goods and an annuity of \$1,000. The only land they retained was the northwest quadrant of Ohio. (Go to 1140 & 1153)

THE SOUTHWEST AND FAR WEST

West of the Mississippi whites and Indians alike were little affected by the American Revolution or the events leading up to it. The spread of horsemanship from the Spanish contact had worked a rapid transformation in the Great Plains, but this was only the beginning of a radical cultural adjustment to a nomadic life. (Ref. 58) Between 1720 and 1722 Mexican Spaniards occupied Texas, fearing loss of the territory to France. A mission was founded at San Antonio in 1718. Around 1700, using the horse, Comanches came out of Wyoming and fought against the Apaches first and then kept the Texas settlements in a permanent state of siege, after a big battle on the Red River in 1759. Spanish Governor Domingo Cabello listed the population of Texas in 1783 as 2,819 Spanish people. In the adjacent area of Louisiana, by 1797, American squatters made up nearly 1/2 of the population of 50,000. (Ref. 59) New Orleans had been founded about 1720 by Le Moyne de Bienville to control river traffic. After 1763, however, Spain controlled this area until the French Consulate forced its return to France in 1800.

Besides Texas and New Mexico, most of Colorado and Arizona, with slices of Utah, Wyoming, Kansas and Oklahoma, all belonged to Spain in an area called the Kingdom of New Mexico, by Madrid. White settlements were made chiefly along the Rio Grande River. Albuquerque was established in 1706, with Taos soon after and there were Spaniards about Pueblo, Colorado by 1750. There was extensive trade between that area and Chihuahua in old Mexico, some 600 miles south. In some years as many as 500,000 sheep were sent there. It is unfortunate that even the Franciscan priests treated the Indians as servants and serfs. In the 1770s almost 1700 Spaniards were killed by Apaches and Comanches, now teaming up against the white invaders. But the area continued to be populated, particularly after Governor de Anza persuaded the Comanches and Apaches to fight each other again instead of the Spaniards. The Utes joined forces with the Apaches. By 1799 the Spanish population in that area was 18,826. (Ref. 60, 61) The Pima Indians⁹ of southern Arizona fought the Apaches, but continued friendly to the Spaniards. In 1775 they numbered about 2,500, living as sedentary

farmers, raising corn, squash, beans, cotton and Spanish wheat by means of irrigation. (Ref. 62)

In the far west, Spain was also active both by land and by sea. The land between Mexico and California was mapped by Father Kino, who went overland to San Diego in 1769 and established missions in the Baja peninsula. The last great military expedition of the Spaniards came about in the 1750s when there were rumors that the Russians were going to take upper California (the state of California, today) and the Spanish considered this a part of New Spain. Actually the Russians were only chasing the sea otter, but King Carlos, of Spain, ordered out expeditions by land and sea to build a chain of forts and hold the California coast. With the military went priests and in particular one Father Serra, who built 21 missions, the main architectural legacy of Spain in California. He personally walked between 4,000 and 5,000 miles up and down the coast line, over mountains and deserts. The Spanish did bring oats, wheat, barley and oranges to America and refined the culture of maize. (Ref. 64) The earliest California missions were in San Diego, San Gabriel and San Luis Obispo, all established by 1773. In 1775 Don Bruno Heceta, sailing the "Santiago" found the Columbia River mouth, naming the river "Rio St. Roc". Spain had a settlement at Cape Medocino, about 130 miles north of San Francisco. (Ref. 65) The Presidio of San Francisco was founded by Bautista de Anza, subsequently the governor of New Mexico, in 1776. All overland routes from Mexico to California were interrupted in 1781, however, by bloody Yuma Indian rebellions. At the very end of the century (1792-1794) George Vancouver made three sea visits to California for Great Britain. (Ref. 66)

MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN

In Mexico Spanish rule continued in a stagnant civilization. The object of Spanish colonization was to enrich the Spanish king, without thought to the effect on the population and progress of the colonized country. There were 5,000 to 6,000 priests, with 6,000 to 8,000 other members of the religious orders and they were owners of tremendous properties. By the end of the century there were perhaps a 1,000,000 creoles and the mestizos were becoming more numerous. In the army, the privates were mestizos and the officers, creoles. The 3,000,000 or 4,000,000 Indians lived very little differently from their ancestors. As the century progressed and after

wide-spread administrative reforms by the new Bourbon monarch, Philipe, King of Spain and grandson of Louis XIV, - especially liberalization of trade regulation - there was a general economic upsurge and the growth of a large middle class population gave new intellectual and cultural life to the colony. A very rapid population increase was apparent by the close of the century, apparently as a result of the development of immunity to the various European diseases. Spanish America became much more Europeanized, although racial plurality, prevalence of large estates and the widespread compulsory labor (both debt peonage and outright slavery) and the extraordinary economic and cultural importance of the Church, distinguished it from the most of Europe. Mexico City had 112,926 people in 1793 and was larger than any city in France or England except Paris and London. There were more people in Mexico than in all of the thirteen colonies of North America. (Ref . 139). Silver mines in the northern part of the country allowed the Mexicans to purchase large quantities of European goods. When the maize supply, which originated in the south, was interrupted in 1785-86, however, famine developed in the northern mine area and there was an endless flight of workers to the south and Mexico City. (Ref. 67)

Guatemala City was founded in 1776, after the old capital was destroyed by an earth- quake. (Ref. 68) After about 1720 Britain's largest supply of American Indian slaves for the West Indies came, not from the U.S.A. south, but from Central America, primarily the Gulf of Honduras, the Mosquito Coast and Panama. Mosquito Indians and some Darien warriors in Panama raided Spanish settlements and Catholic Indian villages in the interior, returning to the coast with slaves. Two thousand such individuals were sold by the Mosquitos in the decade following 1712. (Ref. 69)

In the Caribbean, the first coffee plants were started on Martinique by a French naval officer in 1723 and the Caribbean would eventually supply 90% of the world's coffee. (Ref. 70) Jamaica continued its sugar production and Saint Domingue produced as much or more. Jamaica, as a very large island, had gigantic estates developed there, especially after 1740, when the island's sugar economy was expanded. A typical estate would have a master's house and 9 or 10 black slaves for every white man. The colonial pound had a lower value than the pound sterling (1 pound sterling = 1.4 Jamaican pounds). Piracy and pillage by French

privateers was common. (Ref. 71) By 1763 the British had taken previously Spanish Havana and all the French islands except St. Dominique, but all was restored by the Treaty of Paris of that year. (Ref. 8) Britain did gain permanent control of Belize and protectorates over Honduras and Nicaragua. (Ref. 72)

Late in the century revolt of slaves in Sainte Domingue (Haiti), led by black leaders Boukman and Louverture, ruined the French colony there and changed this island from the richest colony in the world, with sugar and coffee exports, to the poorest republic. (Ref. 73) This revolt must be considered a by-product of the French Revolution. (Ref. 74) Slave trouble occurred on Jamaica, also and resulted in 1739 in the governor's signing of a fifteen point treaty with the maroon leader, Captain Cudjoe. The maroons rebelled against both Cudjoe and the settlement, however, and intermittent conflicts continued throughout the century. Actually Cudjoe's maroons numbered only some thousands, while the total slave population of Jamaica was about 100,000, with fewer than 10,000 whites. (Ref. 75) Even with all their troubles, the planters made at most 8 to 10% profit, the real wealth being accumulated by capitalists in England. (Ref. 76)

When the British took over the tiny island of St. Eustatius in the Leeward group, in 1781, Admiral Rodney found that Jews comprised at least 1/5 of the merchant population. A fine brick synagogue and a large *mikve* (bath house) were scheduled to be fully excavated in the summer of 1982. (Ref. 77, 78)2

2

Vincent and went to the Bay Islands off the coast of Honduras and then to the mainland coast, where many still live in isolated villages. (Ref. 79)

SOUTH AMERICA (See map on page 945)

It has been said that in this century South America was powered by 2,000,000 mules, although in the Argentine, ox carts were used. In 1776 Peru had 500,000 mules for trade or drawing coaches on the coast and in the Andes. 50,000 a year were imported from the Argentine pampas. (Ref. 80) The human population was about 15,000,000 of which about 20% were Caucasian. (Ref. 81)

WESTERN AND NORTHERN COASTS OF SOUTH AMERICA

European expeditionary forces continued intermittent fighting over American ports. With 100 ships and 27,000 men, Britain's Admiral Vernon attacked the Spanish fortress at Cartagena, Columbia in 1741, but the Spanish, with the help of malaria and yellow fever, held them off and the British retired to Jamaica, having lost 4,500 soldiers, at least as far as effectiveness was concerned. Cayenne, in French Guinea, was actually a French penal colony. Cocoa plantations in Venezuela were created by the Caracas Company in 1728. Southern Venezuela, however, was a wild country with huge flocks of sheep shepherded by Indians and Spanish-Indian half-breeds. (Ref. 82)

In the Spanish part of South America a relatively small number of Europeans ruled over a large native population, but as the races and skills were gradually mingled some industry developed, so that by 1700 Spanish America was nearly self sufficient. There were only rare, minor uprisings, the most important of these occurring in Peru in 1780 and 81, led by a man claiming royal Inca descent. Earthquakes were frequent, with Lima virtually destroyed in 1746.

With the new liberalization of trade and transport decreed from the new Bourbon monarchy of Spain, the colonies were allowed for the first time to trade freely among themselves. Gradually wider circles of Spanish-Americans began to interest themselves in the new knowledge from Europe. (Ref. 83) In the third quarter of the century, under the enlightened Spanish reign of Carlos III, the area had even begun to make preparations for self-government, but then the French Revolution spoiled everything. (Ref. 84)

The great silver mines of Bolivia continued to operate during the century. The greatest mining camp was Potosi, 4,000 meters high in the Andes, where more than 100,000 people lived under most expensive conditions. A hen could cost 8 reals, an egg 2. Only the merchants made money. (Ref. 85) The Atacamanian Indians allowed a permanent contact between the populations of southern Peru and the tribes of central Chile - the Diaguites and Araucanians. They kept their own language until late in this century and had a population of about 10,000. One of the foods used by South American Indians on long journeys was prepared by taking 1/4 inch strips of lean game meat (later beef), dipping them in strong brine or rubbing them with salt, then rolling them in animal hide for 10 to 12 hours to allow re-absorption of the salt and release of some

juices, then hanging the strips in the sun to dry and finally tying them in bundles. The Indians called this *charqui* which was later corrupted in the United States West to "jerked" beef or "jerky". (Ref. 86)

EASTERN COAST AND CENTRAL SOUTH AMERICA

The alliance of Portugal with England during the war of the Spanish succession led to French attacks on Brazilian ports, Rio de Janeiro being sacked in 1711. There was continued trouble between the Portuguese and the converted Indians (the Paulistas), with some open warfare finally resulting in the pushing of the line of Portuguese territory farther westward into the jungles. In addition there was war (1710-11) between the native Brazilians of Olinda, capital of Pernambuco, and the Portuguese town of Recife. Again the latter won and made Recife the capital of Brazil until 1763 when it was moved to Rio de Janeiro because of the development of nearby gold mines. Actually the peak gold production was between the years of 1750 and 1755, when over 15 tons a year were mined. (Ref. 87, 88) Throughout all this Brazil continued to provide Europe with sugar, coffee, cacao, rice and cotton, in addition to the gold, but since the Indian labor population had been almost obliterated by conquest and disease, they had been replaced by Africans.

By 1775 some 5 1/2 million slaves had been brought to America, although only 1 1/2 million had survived. (Ref. 89) By mid-century the minister the Marquis de Pombal introduced colonial reforms, including the removal of certain restrictions and taxes and the organization of trading companies. Actually some native Brazilians were appointed to important governmental posts, racial equality was advocated and defenses were improved, but the masters of Brazil were still the merchants of Portugal. The discovery of the rich gold and diamond finds early in the century had helped the economy considerably.

The Jesuits were expelled from their "reductions" in land-locked Paraguay among the Guarani Indians. The "reductions" were compounds with two priests, an Indian supervisor and many Indian farmers and laborers, ostensibly designed to acquaint the natives with Spanish religion and ways, but which really became commercial enterprises competing with other private businesses. The Guarani were language-related to the Tubi groups of Brazil.

(Ref. 90, 91) There were some serious clashes between Spain and Portugal over the area of Uruguay (then called "Banda Oriental") and although Spain created the Viceroyalty of La Plata in 1776 as a defensive as well as administrative measure, the final disposition of the territory was not finally decided until the next century. (Ref. 92)

The fierce Araucanian Indians, some of whom had escaped the Spaniards in the 16th century by taking refuge with their stolen Spanish horses on the eastern slopes of the Andes, subsequently invaded the pampas and occasionally still threatened Buenos Aires in this century. (Ref. 93) The sale of thousands of mules a year to Peru and Brazil gave primitive Argentina a chance to share in the silver and gold of those countries. Some 2,000,000 mules may have been used in Central and South America for saddle or carrying (rarely for hauling). European oxen were used for - drawing heavy carts in the pampas and the gauchos were already riding great horses at the end of the century. Even so, whether traveling by horseback, mule or ox-cart, travelers across the Argentine deserts had to be sure of elaborate arrangements to find food and water. (Ref. 94)

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1. This college was originally at Newark under Presbyterian auspices and was moved to Princeton in 1756. (Ref. 25)
2. This was to be known as Pontiac's Rebellion or Pontiac's Conspiracy. (Ref. 41)
3. Sometimes called the "Molasses Act"
4. An interesting sidelight is that the French fleet under the Comte de Grasse had refueled in the Caribbean and made for the Chesapeake, while his English counterpart, Admiral Rodney, was attacking the Dutch Island of St. Eustatius, just north of St. Kitts, because the islanders had been trading illicitly with the rebel colonies. (Ref. 46)
5. When Patrick Henry gave his famous "give me liberty or give me death" speech, his wife was a hopeless psychotic in a strait-jacket, confined to a basement room. Tom Paine had had a break-up with his second wife, whom he simply left in England. (Ref. 50)
6. Trager (Ref. 52) writes that as of 1775 there were 450,000 slaves below the Mason Dixon line
7. When the French savant and refugee, the Comte de Volney, visited Monticello in 1796, he noted in his journal great astonishment at seeing slave children as white as himself! (Ref. 55)
8. This was on land ceded by Great Britain by the treaty of 1783 (see map on page 1029) but it is obvious that the British in Canada and the Old Northwest did not pay a great deal of attention to that
9. Today about 1/2 of the adults on Pima farm reservations have diabetes mellitus. William Tucker (Ref. 63) believes that they are representative of certain groups of Polynesians and American Indians who, in their past history, have gone through periods of infrequent meals. As an adaptation to those large, infrequent meals, their bodies developed low insulin production, allowing the blood sugar to rise and stay high longer and with slower use, carry the individual over the starvation periods. This genetic diabetic trait results in obesity and diabetes in a setting of adequate food and regular meals

America: A.D. 1801 to 1900

AMERICA

NORTH AMERICA

THE FAR NORTH AND CANADA

ALASKA

The century opened with bloody warfare for the small Russian settlement at Fort St. Michael on Baranov Island, when the Tlingits Indians massacred the men and carried off the women to their village at the site of present day Sitka, in 1802. Two years later Baranov's men, regrouped in kayaks and supported by a Russian warship, bombarded Sitka and finally forced an Indian withdrawal. The Russians then built a new fort and in the years that followed the missionary Father Ivan Veniaminov built a cathedral, started a seminary, saved the Tlingits from a small-pox epidemic by vaccination, taught the Aleuts carpentry, blacksmithing and brickmaking, created an Aleut alphabet and with that translated the Gospels. Baranov was followed by 13 Russian governors, chiefly naval officers, but there was one prince and one baron. Commerce with San Francisco was brisk, particularly during the latter's gold-rush days. Among other things, 20,000 tons of Alaskan ice, packed in sawdust, was sold in San Francisco at \$35 a ton. The zenith of Russian culture at Sitka was about 1820

The Kiksadi clan of Tlingits dominated the hinterland and thus the principal source of Russian food supply. Frequently these clans mounted crippling raids against the Russian mainland settlements, some as late as 1866. Supply ships from Russia had to go around the Cape of Good Hope and in some years none arrived. Many Russians died of scurvy before they learned that potatoes and other vegetables could be grown in the far north. At one point, the

Russians attempted to solve their grain problem by establishing Fort Ross, only 90 miles north of the Spanish mission of San Francisco, but the area was not very fertile and they sold out to John Sutter in 1841.

We mentioned in the last chapter that the Russians virtually enslaved the Aleuts, forcing 1/2 of all males between the ages of 18 and 50 to work for very meager compensation. By this policy, along with disease and the use of the white man's firearms, the Aleut population had been reduced to about 1/10 of the original and the Eskimos on the mainland had been cut to about 1/2 by 1857. A massive seal fur industry resulted when a machine was developed which removed the outer layer of bristly guard hairs from the animal. A Moscow journal of 1835 boasted that between 1786 and 1832 there had been 3,178,561 Pribilof fur seals killed. Soon the yield decreased and both European and American fur markets declined so that the fur based economy ceased to be very profitable. The worst losses were in the 1820s.

When Russia was defeated in the Crimean War in 1856 she was desperate for money, and that, along with an increasing interest in China rather than America, was the big factor leading to the sale of Alaska's 375,000,000 acres to the United States in 1867 for \$7,200,000.

That purchase, arranged by Secretary of State William Henry Seward of the Andrew Johnson administration, resulted in the name "Seward's Folly" for that region for many years.

All was forgiven at the end of the century when the great Klondike and Nome gold rushes developed. (Ref. [1](#), [2](#))

Alaska's northwest contained some 24 Eskimo groups, all speaking related tongues.

Unlike their European and Siberian counterparts these Americans relied more on sea mammals than on the new world reindeer (caribou). Seals, walruses and sea-lions supplied food, clothes, boats, tents and oil for lamps. Tendons were used for sewing and bones took the place of wood. The Eskimos introduced umiaks (large, open, skin boats) and the toggle-headed harpoon to the world. (Ref. [3](#))

GREENLAND

Central Greenland remained the most inhospitable of all Arctic areas, but Eskimos did live all along the southern coasts, both east

and west, with a hybrid Eskimo-Danish culture. Due to an oversight at the Congress of Vienna in 1815, when Norway was taken away from Denmark, this colony was overlooked and remained in Danish hands. Administration was poor, however, and among other troubles the natives had a high incidence of tuberculosis. In far northwest Greenland a group known simply as Polar Eskimos lived in complete isolation, using sea-mammal bones for sled runners and using nets to catch cliff-dwelling birds. There were about 150 people there when Europeans discovered them in 1818. (Ref. 4, 5)

CANADA

Arctic Canada had a mixture of Inuit (Eskimo) people living chiefly north of the tree-line and Arctic Indians living just south of that region. Among the latter were the Kutchins, who walked hundreds of miles each summer after the caribou herds. In winter they used snow-shoes and lived in domed caribou-skin tents or log and moss houses. They traded with the Eskimos. Koyukon, Tchin and Chipwyan tribes were all part of those Kutchin people. Inuit Eskimos lived on the Arctic Ocean coast line from Beaufort Sea to the Baff in Bay and Davis Strait as well as on the northern shores of Hudson Bay. (Ref. 6)

In 1825 British North America consisted of 2 major areas: First, there were the six settled provinces of Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick and Lower and Upper Canadas; and second there was all the remaining territory from Hudson's Bay on west to the Pacific. The first 4 named were known as the Maritime provinces; Lower Canada was later to become Quebec and had 625,000 chief ly French people in 1841, while upper Canada later became Ontario and had 455,700 population in the same year. The western territory was owned by the Hudson's Bay Company and the Northwest Company with the British government keeping some authority. Each province was ruled by a local Tory oligarchy which supported the governor.

Occasionally an attempt to gain independence sprouted, such as the revolt promoted by Louis Joseph Papineau¹, an assemblyman, John Neilson, a Scots and Edmund O'Callaghan, an Irishman - in Quebec. Papineau's fatal error was in alienating priests by anticlerical outbursts and when the bishop came out against him, few French Canadians would follow him. In Ontario an uprising of 1836 came nearer success. This was led by William Lyon MacKenzie

of Toronto and Marchall Bidwell, a fugitive from the United States. The rebels marched on Toronto, but were dispersed by one volley from some militia. In May of 1838 Queen Victoria sent the young Earl of Durham to be commissioner of British North America and he adopted a course of clemency to the rebels. Through his recommendations Canada was given responsible government with a ministry responsible to an elective assembly. Nova Scotia obtained creditable government in 1848 without a rebellion through the statesmanship of Joseph Howe, son of a Bostonian. The governments of New Brunswick and Prince Edward Island underwent similar peaceful evolution.

In the 1850s Tsimshian Indians² of coastal British Columbia were savage fighters engaging in ritual cannibalism and they were finally "tamed" by a preacher, William Duncan, by 1862. He was later made governor of Vancouver. The gold rush of Vancouver Island and the Fraser River area occurred in 1858. In the Great Plains were large numbers of Catholic French Indians called "Metis". For 50 years they made yearly excursions in the plains to hunt buffalo and in the middle of the century they were confronted by the Hudson Bay whites, who set up various rules and regulations, which included the prohibiting of those people to trade with the Americans in St. Paul, Minnesota. This prairie land (Rupert's Land) was sold by the Hudson's Bay Company for 300,000 to the New Dominion of Canada in 1869, just 2 years after that Dominion was established by the British North American Act. The sale remained unknown to the 6,000 French-speaking and 4,000 English-speaking mixed bloods and 1600 white settlers in the plains areas.

Louis Riel the Younger, 1/8 Chippewa, but educated in Montreal on a Catholic scholar- ship, became the Metis leader. He rebuffed the government's attempts to survey and reclaim the land, working out of his headquarters in Fort Garry, which was later to become Winnipeg. Riel was hung as a traitor to the Dominion in 1885, 15 years after Manitoba had become a province. Canadian Mounted Police had been formed and after the Metis were controlled, the great nations of the Sioux had to be tamed and that included Sitting Bull, himself, who had gone to Canada after the famous Custer massacre in the United States. The end result for these displaced Indians, however, was gradual starvation, as civilization came west with the Canadian Pacific Railroad in the 1880s. We shall hear much more about earlier Indian problems in the vicinity of the

Great Lakes in later paragraphs. (Ref. [9](#), [10](#), [11](#))

The formation of the Dominion resulted from three forces, the rise of Canadian nationalism, a desire of British liberals to slough off colonial responsibilities and the ambition of some elements in the United States to annex Canada. The constitution granted to the Dominion reserved the powers of government in the Parliament at Ottawa, but it failed to quench provincialism, particularly among the French population, which considered itself a nation apart, and still does.

Like the United States, Canada had a depression in 1873, which lasted at least 20 years and slowed the growth of that country considerably. It recovered only after the completion of the transcontinental Canadian Pacific Railway in 1885, after years of financial and engineering difficulties. The election of 1896 brought Sir Wilfrid, a French-Canadian lawyer, to head the government as premier and his long administration saw a wave of prosperity as the prairie provinces developed with their new railroad transportation system. Still, at the end of the century great expanses of land in Canada were essentially uninhabited. Lands occupied by 1900 included a narrow strip along the St. Lawrence River, Montreal and the eastern Great Lakes, then southern Manitoba, Saskatchewan and southeastern Alberta, with Winnipeg as a wheat center being the only city of over 100,000 west of Toronto. (Ref. [12](#), [13](#))

We cannot leave the discussion of British Canada without reverting back to activities connected to the War of 1812 with the United States. As early as 1811 British Canadian officials believed that war was imminent and began to warn Indians who were friendly to them. Chief among those were the Shawnees, who were led at that time by the mystic Prophet Tenskwatawa and the latter mobilized many Ottawas, Potawatomis and Chippewas in the Lake Michigan region. After some preliminary maneuvering actual land warfare began with the British and Indian forces defeating the Americans at the battles of Brownstown, Monguagon and Fort Michilimackinac. On August 16th Governor William Hull surrendered the American Fort Dearborn, just 24 hours after Potawatomis had killed most of the garrison. That winter the Prophet had trouble feeding his people in the Indiana area, however, and as another American expedition approached, he and most of his followers fled to Canada.

Knowing that the American Governor Harrison was preparing to

recapture Detroit, the British commander Brigadier General Henry Proctor launched offensive operations. While ships transported the British regular militia and artillery across Lake Erie, the Prophet and his brother, Chief Tecumseh, led almost 1,200 Indians overland to the mouth of the Maumee. The attack failed and a similar one launched July 21, 1813 also failed. Meanwhile on Lake Erie, Capt. Oliver Perry's fleet took on the British under Capt. Robert Barclay and destroyed them in a 3 hour battle at Put-in-Bay. On land, Proctor talked his Indians into withdrawing and preparing for new battle on the Thames River. In a great battle about 2 miles west of Moraviantown almost all the British soldiers were killed or captured and the Indians scattered through the forests. Tecumseh was shot down and the Indian remnant had only 374 warriors, with about 650 women and children. The natives spent a miserable winter of 1813-1814 camped at the western end of Lake Ontario and the British gave them just enough supplies to keep them from starving.

The war scene then seemed to shift to the Niagra frontier where the Iroquois were British allies. The Shawnees agreed to join with the Iroquois, but they arrived a full day after the decisive Battle of Chippewa had ended. For 2 years the British Indian Department had been hard pressed to feed all the exiles in Canada and they wanted them back in the United States. It was not until the white immigration into upper Canada occurred in the decade after the Treaty of Ghent, however, that the embittered Tenskwatawa severed his ties with the British Indian Department and returned to the United States where, by 1819, he no longer seemed a threat. (Ref. 14)

THE UNITED STATES

It is not a simple matter to scan the history of the United States in the 19th century in an outline form. The War between the States seems to make a natural break-point, with the situations before and after the war quite different. With this in mind we shall divide this section accordingly.

THE UNITED STATES BEFORE THE CIVIL WAR

THE EAST

Presidential candidates for the election of 1800 were selected by party caucuses in Congress, with no public electioneering and no speeches or statements by the candidates. Even so, the politicians

managed to make it a scurrilous campaign with the Republican winner, Jefferson, being accused of being a Jacobin, an atheist and a French agent. Jefferson himself believed that his election saved the country from militarism and monarchy. As for "monarchy", it was Jefferson who founded the "Virginia Dynasty" consisting of 4 presidents, who reigned for almost a third of a century. Each of these administrations will be briefly discussed.

THOMAS JEFFERSON ADMINISTRATION (1801-1808) 3rd President

By 1803 a doctor in backwoods Kentucky had vaccinated 500 people for small-pox. Through the Napoleonic Wars, the United States attempted a neutrality policy, but she could not avoid some combat with the pirates of Tripoli between 1801 and 1804, as we noted on page 1051. Meanwhile, the boundary of the nation went west to the Rocky Mountains through the purchase of the Louisiana territory from Napoleon for \$16,000,000, since the little emperor was afraid Britain would soon pluck it from him anyway. But we shall discuss this more in a later paragraph when we outline the Mississippi valley region. (Ref. [15](#), [16](#)) Jefferson himself was a most complex man and we have noted many of his characteristics on page 1028. A few additional remarks may be of interest here. The existence of his mulatto children was made public by the journalist James Thomas Callender in 1802 and again by the New England Palladium in 1805. In the field of religion, he re-wrote the New Testament, leaving out all mysticism, Virgin Birth, miracles, etc., entitling the work The Philosophy of Jesus of Nazareth. It was not published until after his death. As this man and his party gained power, the New England Federalists and their clergy worried about terror, atheism and free-love resulting from all this triumph of democracy. Alexander Hamilton, rising in stature on the political scene, truly expected Jefferson's regime to end in anarchy like the French Republic and he was ready to step in as the United States Bonaparte. He was killed in a duel by Aaron Burr, the vice-president, who was politically dead, himself, after that duel. Burr, 1806, tried to hatch a conspiracy against the United States from the region of New Orleans and that lead to a treason charge, from which he was finally freed by the work of his attorney, John Marshall. Burr left for Europe, there to try still more conspiracies unsuccessfully and finally returned to the United States in disguise in 1812. (Ref. [17](#), [18](#))

To go back a few years, Jefferson, concerned with the European situation which saw Napoleon still strong and the British navy supreme, built up the federal government to cope. But high wages in the United States navy and merchant marine began to attract deserters from the Royal Navy, so that the latter soon began to use that as an excuse to stop neutral U.S. ships and search them for deserters. Such an episode in June 1807, involving the U.S.S. Chesapeake, brought the new country and Britain to the brink of war. (Ref. 19)

JAMES MADISON ADMINISTRATION(1809-1815) 4th President

In 1808 Congress had passed a law against the importation of slaves, but it was not strictly enforced because Eli Whitney's cotton gin initially made slave labor in the fields seem even more needed. In addition the invention of the gin introduced the principle of mass production to America, a feature which led to the Colt revolver, the sewing machine and the flour mill, revolutionizing the status of human labor, particularly in the western world and still more especially in the northern states. The north welcomed the Industrial Revolution while the south rejected it. After Jean Etienne Bore had demonstrated how to make granulated sugar from cane, a great sugar empire began to stretch along the Gulf. With the development of a steamboat which could go upstream against the Mississippi current, the sugar was sent to St. Louis, Louisville and Cincinnati for refining. (Ref. 20)

Although a great statesman, Madison was a poor politician and as a result of his ineptitude and Napoleon's maneuverings, difficulties with England increased. Both French and English navies were seizing and even scuttling American vessels. In 1811 Madison forbade all intercourse with England and as Napoleon had closed all Europe to Britain at the same time, it made for a very bad winter in England. By 1812 the United States and England were at war.

In the meantime, as the Spanish Empire appeared to be breaking up, the inhabitants of "West Florida" elected for the United States and were soon incorporated as the Territory of Orleans (later part of the state of Louisiana. We must also discuss the Indian situation in the Ohio and Indiana regions at this time. By 1800 many Indians were ready to try the white man's ways. Late in 1801 a delegation of chiefs from the Potawatomis, Miamis, Delawares, Shawnees, Kickapoos and Kaskaskias visited the east and two of the chief s

asked for government assistance. As a result, during that first decade of the century the federal government and various religious organizations sent funds, farming implements and advisors to those tribes. Yet most of the programs were mismanaged and unscrupulous agents even sold the farm implements to white settlers. But primarily the Indians themselves could not become adjusted to the new ways. The Shawnees, early known as the "Southerners" by other Algonquian-speaking peoples shared the same problems. Branches of this tribe were scattered across the south, the Gulf Coast, the Delaware Valley, Georgia and South Carolina at various periods. In this century many were settled in Ohio and Indiana when the white citizens there declared an "open season" on Shawnee property. That, along with Shawnee excessive drinking, economic difficulties and various injustices led to deterioration of relationships. Some of these Shawnees, including a young prince, Tecumseh, had fought against the Americans under "Mad Anthony" Wayne at the end of the last century. Now Tecumseh's brother Tenskwatawa, a Shawnee holy man, sought to save his people with a new mystic religion. Claiming that he had been appointed by the Great Spirit he established Prophetstown near where the Tippecanoe joins the Wabash River, denounced alcohol and polygamy and set up certain rituals. The future president William Henry Harrison kept pushing his land acquisitions and further antagonizing various tribes, all of which soon began to accept the new Shawnee religion and join the groups at Prophetstown. The Kickapoos, Potawatomis, Ottawas, Chippewas, Crees, Winnebagos, Sacs, Miamis and Assiniboinis were all converts. By 1807 Prophetstown had over 60 cabins and wigwams clustered around a frame council-house measuring about 150 by 34 feet. William Wells, the Indian agent at Fort Wayne, warned both then Governor Harrison and the Secretary of War that the Prophet constituted a serious threat and it was certainly true that most of these Indians had begun to sympathize more with the British in Canada than with the "Long Knives" Americans. Only the Shawnee clan led by Chief Black Hoof remained loyal to the United States. (Ref. [21](#))

But the Prophet began to have trouble feeding his hordes at his "holy city" and when the Ottawas and Chippewas near Lake Michigan defected, Harrison thought that the Shawnee leader was slipping and he made plans for further land encroachment. In

September 1809 he signed a Treaty of Fort Wayne with Miamis, Delawares and some Potawatomis, obtaining over 3,000,000 acres of land in Indiana and Illinois. The Shawnees were incensed and Tecumseh set out south to try to gather more of his scattered kinsmen for a final confrontation. He also visited the British at Malden and, as we noted on page 1139, the British, foreseeing possible war with the United States, began to court these Indians, sending them food, arms and ammunition. Finally in the fall of 1811, after several unsuccessful conferences, Harrison started north from Vincennes with an army to put an end to Prophetstown. The famous Battle of Tippecanoe began in the early morning of November 7, 1811.

"Harrison described the battle as a 'complete and decisive' American victory, and three decades later he would gain the presidency as 'Old Tippecanoe', a military hero who had soundly beaten the Indians on the Wabash. But a closer examination of the battle and its outcome indicates that Harrison's claims were exaggerated. Both white and Indian losses were much the same. The American force numbered close to 1,000 officers and men. They suffered 188 casualties, of which at least 62 were fatal. The number of Indians engaged in the contest is much more difficult to ascertain, but there were probably between 600 and 700 warriors. Reports of Indian casualties also vary widely, but probably at least fifty were killed and seventy were wounded."³

THE WAR OF 1812

War was declared on the basis of the impressment of American seamen, repeated violations of American territorial rights and alleged blockading of the American coast. Although New England, where 3/4 of the American shipping was owned and which supplied most of the seamen, wanted no part of the war⁴, the war-hawks thought the fight, if successful, would result in the conquering of Canada, end the Indian menace and throw more western land open. Many politicians, including William Henry Harrison, had already grabbed land in the amount of about 48,000,000 acres between 1795 and 1809. The belief of many that Britain was behind the Shawnee Confederacy just described above, helped force the declaration of war on June 18th. Greatly outnumbered, the one saving fact for the United States navy vessels was that the Royal Navy was so deeply engaged in war at the same time with France

and could spare only 1 ship of the line, 7 frigates and a number of smaller ships to operate off the American coast. The British did blockade much of the east coast and there was action, as we have seen (pages 1139-40) on and around the Great Lakes. The war was unpopular everywhere, perhaps due to poor leadership from Madison. After Napoleon's abdication in April, 1814, Britain was able to provide Canada with an adequate army and things changed rapidly, with the British war office planning a three pronged invasion attack - at Niagara, Lake Champlain and New Orleans - as well as raiding at Chesapeake. A British raiding party did enter Washington, ate at the White House (which Madison had evacuated) and burned all public buildings of the capitol. Otherwise execution was poor, however, and the final New Orleans attack was thwarted by General Andrew Jackson, although unknown to those participants, the peace had already been signed in Ghent.

After the war there was a great stimulus to manufacturing and by 1815 there were 500,000 spindles in operation. The Federalist New Englanders were actually talking about secession at that time, but the Republicans of the same area kept the activity under control. Those two parties continued to struggle for a quarter of a century. (Ref. [24](#)) In 1814 General Andrew Jackson had defeated the Creeks at Horseshoe Bend near the border of Georgia and Alabama and so, after his defeat of the British at New Orleans in the following year, the United States was well in control of the old "southwest". (Ref. [25](#), [26](#))

JAMES MONROE ADMINISTRATION (1817-1824) 4th President

Except for the Monroe Doctrine, the Supreme Court decisions of Chief Justice Marshall were the only enduring feature of the new nationalism of 1815 and after. The decisions included the defense of the constitutionality of the new Bank of the U.S., the right of the Supreme Court to review state court decisions concerning treaties or laws affecting the nation and finally the denial of the states to withhold militia from national service when demanded by the president. Henry Clay and John Calhoun were nationalist leaders in Congress at that time and both feared sectionalism. A post-war depression appeared in 1819 and in the recovery period, the question of slavery arose, with both sides threatening secession. In fear, Congress passed the Missouri Compromise, in which Missouri was admitted to the union as a slave state, but slavery was

prohibited thereafter in any area north of Missouri's southern border, latitude 36~ 30". At the same time, Maine, which had just detached itself from Massachusetts, was admitted, thus making 12 free and 12 slave states.

It is appropriate here to return momentarily to the Indian situation in the southeast United States. In spite of all contact with Christianity the Southern Indians clung to many of their ancient rituals, especially the "bush" or annual Green Corn Festival, which lasted for several days after the new corn ripened and homage was paid to the Sun, Corn and similar Indian deities. However, many of the Indians and mestizos lived among the colonists, merged into the white culture and in time forgot their language and traditions. Genetically they had considerable impact, far more than is generally realized. After their many troubles more than 500 Creek survivors congregated in southern Alabama near Atmore, where for decades they lived near whites and Negroes. Each had its own school system, although the whites were dominant and discriminated against both ~he other groups. But mixing was considerable and today many of the "whites" in this area are in part Creek. All Indians were not exterminated by disease, warfare or the later transfer west. In part they remained in the south, partly absorbed and helping to create 19th century "Negroes". Even Alex Haley, author of *Roots*, has Indian forebears. In the 1920s the anthropologist Melville Herskovits made a random anthropometric survey of students at Howard University in Washington D.C. and of a selected groups of Negroes living in Harlem. One-third of each group displayed physical characteristics of Indian ancestry. In 1947 the historian August Meier made a genealogical survey of Negro college students in the southern heartland of Mississippi and adjoining states. On a large sample, 70% had Indian ancestors⁵. Thus right (Ref. 27) feels that the American black is not an African black but actually a new race. It is difficult to determine the extent of Indian blood in the American Negro because one does not have any of the Timucuan, Stono, Occaneechees and other extinct tribes to study and present day Powhatans and Cherokees are not the same as those found at the time of first white contact.

In the United States early the word "slave" became synonymous with "black", "African" or "nigger" and since there were many Indian slaves, they were of ten subject to the same names and, in fact, considered the same. Actually genetically the southern Negro was a

product of Africans, whites and Indians. After slave importation from Africa was outlawed and Indian slave raids in the South had become relatively insignificant, the percentage of males among those races of the south changed. The male Africans decreased in percentage while the male Indians increased. The famed Seminole Chief Osceola's spouse, or at least one of them, in all probability was a Negro and his father in all likelihood was white. A physical anthropologist who has examined Osceola's bones has speculated that he had African forebears as well. Many modern Negroes are doubtless correct in claiming direct descent from that great Seminole warrior. As the Cherokees became increasingly cultured, they adopted white attitudes toward Negroes, but it was different among the Seminoles. Both slave and free Africans lived among them and indeed were a part of the Seminoles and their presence became more conspicuous during the 19th century Seminole wars. In 1818 General Andrew Jackson stormed into Spanish Florida and his major objective was Bowlegs Town, a sizable Negro settlement on the Suwannee River. (Ref. 29)

As Monroe's Secretary of State, in December, 1823, John Quincy Adams insisted that the president issue what became known as the Monroe Doctrine. As a warning to European powers who might have designs on any of the new central and south American governments and to Russia, who was claiming new territory on the Canadian coast, the doctrine may be summarized as follows:

1. The American continent was not to be considered as subject for future colonization by European powers
2. The U.S. would not interfere with any existing European colonies

JOHN QUINCY ADAMS (1825-29) A minority president

Adams was a great patriot and wanted to use federal revenue to increase the navy, build national roads and canals, send out scientific expeditions and establish institutions of learning and research, but most of these things were not to materialize for some years to come.

*ANDREW JACKSON (OLD HICKORY) (1829-37) 6th President and
MARTIN VAN BUREN (1837-41) 7th President*

This was the era of the great political figures - Adams, Clay,

Webster, Van Buren and Calhoun, and it marked the beginning of the modern Democratic political party. The Adams - Jackson political campaign of 1828 was the most degrading experience of an election that the United States had experienced. Jackson was ill-educated, intolerant and rough, yet professing the principles of the Declaration of Independence and devoted to the union. Jacksonian democracy was the upsurge of a new generation of recently enfranchised voters against a somewhat ossified Jefferson Republican party. (Ref. 30) Jackson Democrats believed in equality only for white men and they introduced the spoils system into federal government, catered to mediocrity and diluted politics with the incompetent and the corrupt. The jackass as a symbol of the Democratic party was first used by the opposing Whigs as a satire on the supposed ignorance of "Old Hickory". Two vital issues of that time were:

1. Nullification. First set forth in the Exposition of 1828 by the legislature of South Carolina, this stated that each state had the right to judge when its "agent", the federal government, exceeded its powers and then to take measures to prevent enforcement within state limits. Calhoun was the secret author. Jackson threatened the use of army and navy in a showdown in 1833 and South Carolina backed down
2. The Bank of the United States. Jackson forced the demise of the previously well run U.S. Bank by denying it government funds. Local banks, released from control, increased paper credit for speculation in western lands and shortly thereafter the financial panic of 1837 burst upon the country. Van Buren, a shrewd, able and dignified president spent the whole of his administration developing a substitute for the Bank of the United States. He was also the principal architect of the modern American political party

Andrew Jackson hated the British and all Indians, due to several unfortunate incidents in his childhood. It was an almost foregone conclusion, therefore, that when the whites wanted more land for cotton in the south that Jackson should outlaw the tribal kingdoms of the Choctaws, Creeks, Chickasaws and Cherokees in Mississippi, Alabama and Georgia. The Indians appealed to the Supreme Court and Chief Justice John Marshall upheld their claim, but Jackson

paid no attention and ordered the army "to get them out". 30,000 of those Indians were driven, one way or another on the "Trail of Tears" to Oklahoma and one quarter of them died on the trip. (Ref. 31, 32) The common impression that after the 1830s all Southern Indians had been either killed or removed to Oklahoma is misleading, however, because some 74,000 are still present in the South today, living in loose, ill-defined clusters, such as the Creeks around Poarch, Alabama and the Lumbees south of Fayetteville, North Carolina or on reservations. It was during Jackson's administration that the Second Seminole War was fought in 1835. Abolitionists charged that this was really not an Indian but a Negro war, resulting from southern white determination to capture and enslave Negro-Seminoles. Many parallels exist between the maroon wars in Jamaica (see page 1035) and the several Seminole wars fought in Florida, Georgia and Alabama. (Ref. 33)1

1

The Chickasaw, Creek and Choctaw were all advanced civilized peoples, but the Cherokees were astounding. Spread over northwest Georgia into Alabama and part of Tennessee, the Cherokees had a printed language, which had been developed by George Gist, also known as Sequoyah, a Cherokee half-breed. Bibles, other books and even a weekly newspaper, "The Cherokee Phoenix", were printed. They welcomed Christian missionaries, built roads, houses and churches. In 1826 a Cherokee reported that his people possessed 22,000 cattle, 7,600 houses, 46,000 swine, 2,500 sheep, 762 looms, 1,488 spinning wheels, 2,948 plows 10 saw mills, 31 grist mills, 62 blacksmith shops and 18 schools. They were more civilized than the Georgia "crackers", who coveted their lands. The independence of that Cherokee nation had been guaranteed by the U.S. in a treaty of 1791, but the state of Georgia had been chopping away at their lands for 30 years and the discovery of gold in the area in 1828 was the last straw. The Indians had to be moved to Oklahoma Territory. The journey cost them 25% of their numbers but they retained their identity, government, language and alphabet to this day. (Ref. 34) There were several important landmarks in the approach to the American Civil War. Among these was the Dred Scott Decision. Dred Scott, a slave, having been taken temporarily into a free state, sued for his freedom and the Supreme Court decided against him on these grounds: (1) A Negro could not be a U.S. citizen and therefore could not sue. (2) As a resident of Missouri, the laws of Illinois (where he had been taken) did not apply. (3) In any

event, Congress could not deprive citizens of their property - in this case a slave. This was in 1857. Another stepping stone toward war was John Brown's raid: John Brown, a long avid abolitionist, seized the federal arsenal at Harpers' Ferry in October, 1859, as the first step in establishing a planned Negro Republic. He was later hanged. In the meantime, Lincoln, as a member of the new Republican Party, appeared on the scene. His party won the Congressional elections of 1860, combining solid policies of Hamiltonian Federalism with the hopeful, humanitarian outlook of the old party of Jefferson. Minnesota and Oregon were admitted as new states in 1858 and 1859, making 18 free and still only 15 slave states. Lincoln won the new presidential election as the Democrats fought and split over Douglas and Buchanan. (Ref. 35) The Navaho Indians have withstood the white onslaught better than most and this may be because they are cultural "borrowers" - learning agriculture, weaving and pottery from their early, settled, Pueblo neighbors, stealing horses from the Spanish and many social and religious ideas from the Mexicans. In 1863 Colonel Kit Carson subjugated the Navaho and imprisoned 8,500 of them in Fort Sumner. After three years they were released to a 16 million acre reservation in the southwest. While in prison some learned silver working and with this and their other skills they have survived as traders in the American market. (Ref. 36, 37, 38) Up to 1868 nearly 450 treaties had been signed by the U.S. government with various Indian groups and scarcely a one remained unbroken. With the end of the Indian wars an economic recession hit the West, for up to 1870 the federal administrations had been spending about \$1,000,000 for every Indian killed. (Ref. 39)

WILLIAM HENRY HARRISON & JOHN TYLER (1841-1845) Whig party

We have previously noted that Harrison was elected, in great part, on the basis of his questionable victory over the Indians at Tippecanoe. (See pages 1143-44). Upon Harrison's early death, his vice-president, John Tyler, succeeded to the presidency, both of them representing those old Jefferson Republicans who would not follow Jackson. They were helped by a few remnants of the old Federalists.

The next several presidents of the eastern establishment contributed few major policies or advancements to the nation. JAMES K. POLK (1845-49), a Democrat, did bait Mexico in order to win California. This will be discussed in a later section on "Texas and Mexican War". He was followed by GENERAL ZACHARY TAYLOR, (1849-50), a Whig whose chief fame was that he was president during the period of the California gold rush, which will

also be described later. MILLARD FILMORE, (1850-53) was a Whig who became president upon Taylor's death and signed the compromise bill admitting California and Texas as states and the organization of New Mexico and Utah as territories free to enter the Union without reference to slavery. His administration was the last of the Whig party, as FRANKLIN PIERCE (1853-57) was then elected as a Democrat. During his administration, Daniel Webster was Secretary of State and it was the time of the Kansas-Nebraska Bill, which will be mentioned in a later paragraph. JAMES BUCHANAN was elected for one term as a Democrat in 1857 and slavery was the real issue of that campaign as the slave trade continued, even though it had been illegal since Fillmore's administration. Between 1840 and 1847 some 440,000 slaves were illicitly exported to the United States, Cuba and Brazil. In 18 months of 1859 and 1860 some 85 slave ships were fitted out in New York City, alone. (Ref. 40)

We have very briefly covered the political and governmental situation up to the time approaching the Civil War, but we need to find out more about how people lived in that time. Cholera ravaged the entire country three times in this century and yellow fever hit the northeast early and then the southern and Gulf of Mexico ports, with a peak in 1860. (Ref. 41) Northern U.S. society experienced the industrial revolution, cheap transportation, educational and migratory movements and those things influenced the border states somewhat, but the lower south was entirely apart, as was the far west and the southwest. Thus we shall now discuss the various parts of the country separately.

First the north. This was a busy age, with every northern community a human ant-hill of activity. Most white workers still worked 63 hours a week and 18% of all children were still employed. Everything was business, there were no public parks or pleasure resorts, few games or sports. Sculling in the eastern harbors was the only competitive sport, trotting horse races about the only entertainment. As early as 1856 there were 38 trotting courses of national repute in the northern area. Medicine was bad and anyone wanting a good medical education had to go to Austria or France. Tuberculosis, cholera, typhus and yellow fever killed thousands. Dr. Oliver Wendell Holmes did write on puerperal fever in 1842, antedating Semmelweis by 4 years, but few believed him. Dr. William W. Gerhard of Philadelphia did a fine study of cerebral

meningitis in 1834 and later distinguished typhus and typhoid fevers. Dr. Crawford W. Long of Georgia, in 1842 and Dr. W.T.C. Morton of Massachusetts, in 1846 successfully used ether for anesthesia. Dr. Philip Physick of Philadelphia established surgery as a specialty and the American Medical Association was founded in 1847.

City water systems and sanitation were crude or absent. Philadelphia pioneered with pumping water from the Schuylkill River and by 1830 could deliver 6,000,000 gallons of water daily. But Chicago, owing to difficulty of drainage, had practically no plumbing until 1861. Boston, with a population of 165,000 in 1857 had only 6,500 toilets, of which 8, in the basement of the Tremont House, served 200 to 300 guests. Illuminating gas was fairly common by 1860 and 337 cities had it piped in from central plants using coal. Although the district of Michigan only had 31639 people in 1832, there were 940 miles of post roads. (Ref. [42](#), [43](#))

Immigration from Europe accelerated. In the 1830s there were 540,000 newcomers with 44% Irish, 30% German and 15% English, but by 1840 the number rose to 2,814,554 in the following decade. Almost all arrived and stayed in the north and almost all became Jackson Democrats through the planned manipulations of the party hacks. Irish immigrants comprised 34% of all voters in New York City in 1855, but they contributed little to American economic or intellectual life. Ugly racial and religious riots arose in the eastern cities at least once every decade.

The factory system for cotton spinning and weaving became well established in New England, so that by 1840 there were 1,200 cotton factories, operating 2,250,000 spindles in the United States, 2/3 of these in New England. By 1850 there were over 1,500 woolen mills. These and other mills were operated largely by water power. In 1860 manufacturing produced \$1,000,000,000. The iron industry developed very slowly. It has been written that the Atlantic towns heated their houses with coal brought 3,000 miles from England rather than by wood from their own forests 30 miles away, because sea transportation was that much cheaper than overland. Steam-ships were not in use at the time of those comments. (Ref. [44](#), [45](#)) Still there were hard times between 1837 and 1841 and westward migration accelerated. Canal and railroad construction created a demand for cheap labor and made it easier for people to reach the west. The-states built their own canals, roads and

railroads. Ohio linked the Great Lakes with the Mississippi valley; the Erie canal connected Buffalo to New York City.

By 1820 New York State's population of 1,372,812 was in first place and the increase in inhabitants of New York City was phenomenal. By 1850 there were 515,547 people in the city proper plus 96,838 in Brooklyn. Fortunes were accumulated there, but culture was deficient. Columbia University, the only college present until 1831, graduated only about 24 a year. New York University and Fordham added a very few more after 1841. Upstate New York, however, was well provided with denominational colleges. The most original contribution to higher education was Rensselaer Polytechnic Institute, founded at Troy in 1824, the precursor of all the subsequent engineering and technical universities. An interesting aside is the final disposition of the great Dutch estates along the Hudson. Their lands had been rented out in an old feudal type system that involved peculiar considerations. With the death of Stephen Van Rensselaer, "the last patroon" in 1839, a rebellion broke out among his renters, when his sons tried to collect thousands of dollars of back rent. This forced New York legislation modifying the rent and lease laws and systems. Intellectuals of New York State were plentiful, including Clement C. Moore, Professor of Hebrew and Greek, who wrote "The Night Before Christmas"; William Cullen Bryant, America's greatest poet; Edgar Allen Poe; Henry W. Longfellow and Nathaniel Hawthorne. The artist Colonel John Trumbull of Connecticut painted the "Declaration of Independence" and "Battle of Bunker Hill". John Lloyd Stephens founded American archeology after trips to the old Maya scenes in Central America and Yucatan.

In other fields, Abbe Sicard established the first American school for the deaf at Hartford and Samuel Howe and Michael Anagnos founded the Perkins Institute for the blind. Women's suffrage movements were initiated as early as 1848. Many "isms" appeared, not the least of which was Joseph Smith's Mormon faith. In 1836 Emerson published "Essay on Nature", opening the period of transcendentalism, a belief in the divinity of human nature. In the same generation there were Hawthorne, Thoreau and the Alcotts.

By 1850 there had been formulated three basic principles of education:

1. Free primary and secondary schools should be available for all

children

2. teachers should have professional training
3. all children should be required to attend some school- up to a certain age

By 1840 over 150 small denominational colleges were in existence in the country. American science soon became specialized. Joseph Henry discovered the electromagnet and many other features of electricity and Samuel F.B. Morse used the former to develop the telegraph. Charles Goodyear had patented the vulcanization of rubber by 1844. The Smithsonian Institute was started in 1846 with Joseph Henry as its first director. Only astronomy lagged and this was due to the effect of organized religion, which considered probing the heavens with a telescope as mildly blasphemous.

And now we must consider life in the American south. We have already discussed the Indian-Negro situation at some length on pages 1115 and 1116. "Cotton was king in the south from 1815 to 1861, and the principle bulwark of his throne was Negro slavery"⁶. By 1860 the crop was almost 2,300,000,000 pounds, accounting for 2/3 of the total exports of the United States and 5/6 of the world's production. In that harvest 4,000,000 slaves were used. A prime field hand 18 to 25 years old was worth \$500 in 1832 and \$1.300 just before the panic of 1837, although their yearly maintenance cost only \$15 to \$60. Morison (Ref. 46) says that 13% of all Negroes in the U.S. in 1860 were mulattoes, but as we have seen, later writers might put this much higher, especially if one adds in Indian blood. The south was ruled by a few but strong classical southern gentlemen, of which only a few descended from the colonial aristocracy. The great mass of wealthy planters by 1860 were self-made men like Jefferson Davis, whose parents had lived in log cabins. There were probably fewer than 15,000 families of the southern white gentry and most of the white southerners were small farm owners. The latter were actually the governing class in Alabama, Mississippi and Arkansas. About half the cotton crop was made by those who owned from 1 to 6 slaves. Whites were forbidden to teach slaves to read and write in every southern state except Maryland, Kentucky and Tennessee. (Ref. 47) In contrast to this slavery in America we should recall that although slavery was almost universal in more ancient times, the slaves then were of the same race as their masters, of ten the better educated and usually

could work or buy their way out of slavery eventually. In the U.S., slavery was fatally united with the permanent, physical fact of color. (Ref. 48) A slave rebellion led by Nat Turner in Virginia in 1831 resulted in the deaths of 57 whites and perhaps up to 100 Negroes before it could be put down by regular troops and navy personnel. Elsewhere in America slaves were being freed, in the British colonies in 1833, the French Antilles in 1848 and the Spanish republics in turn between 1813 and 1854. Only in a few Spanish and Dutch islands, the United States and Brazil did slavery continue after 1854. Some effort had been made to return blacks to Africa by the American Colonization Society, but by 1855 only 3,600 had been sent. This did help the Republic of Liberia to form a constitution patterned on the U. S. model, however, in 1857.

There was little literary, scientific or artistic production from the prewar south, with the exception of some outstanding "firsts" in medicine. Ephraim McDowell (trained at the University of Edinburgh) developed an international reputation in abdominal surgery, while J. Marion Sims, practicing in Alabama, laid the basis for the specialty of gynecology. As noted previously, Dr. Crawford Long of Georgia used ether for anesthesia in 1842, but he did not publicize his discovery for several years. The first dental school in the world was established in Baltimore in 1839. (Ref. 49) The south's one scientific achievement was Commander Matthew Fontaine Maury's Physical Geography of the Sea (1855), which marked him as the world's greatest oceanographer. Most of the south's energy, however, seemed to be devoted to backing up John Calhoun's ridiculous pro-slavery doctrines. Even in religion the southerners were different. Both the southern divisions of the Methodist and Baptist churches defended slavery. There were many reasons for the great resistance to the emancipation of the slaves. We have already noted that the invention of the cotton gin, which made cultivation of upland cotton by slaves profitable, was one factor. Jacksonian Democracy was another great influence, because of the rise of provincial, ill-educated politicians, who catered to the prejudices of the middle class and poor whites. Instead of preparing the south for the inevitable emancipation, those men flattered people into the fatal belief in the righteousness of slavery.

THE MIDDLE WEST AND THE LOUISIANA PURCHASE REGION

In this section we shall be concerned primarily with the territory gained through the "Louisiana Purchase" and what we currently consider the Middle West. We have infringed somewhat on this by discussing pre-war features in Ohio, Indiana and Illinois, but in this 19th century it seemed that those regions were more closely linked with the traditional EAST.

There were many reasons for Napoleon's sale of the Louisiana Territory - his need for money, his fear that Britain would otherwise soon take it from him, and his General Leclerc's recent loss of 24,000 men over a 9 month period to disease and the arms of 500,000 black Haitians, who would not be enslaved. The legality of the sale was questionable, however, as the area was still in the hands of Spain, even though the French claimed that Spain had ceded the area to Napoleon in a secret treaty of 1801. At the time the contested region was an unmanned, undefended empire with the whole watershed of the Mississippi and comprising the present states of Louisiana, Arkansas, Oklahoma, both the Dakotas, Iowa, Nebraska, Kansas, Minnesota, Colorado, Wyoming and Montana, - that is, one-third of North America. The sale price of \$16,000,000 actually amounted to 4 cents an acre. After the purchase, President Jefferson then appointed Meriwether Lewis and William Clark, along with a 16 year old Shoshone Indian girl and her French-Canadian husband as guides and interpreters, to survey the new purchase. They left St. Louis in May of 1804. (Ref. [50](#), [51](#), [52](#))

The boundaries of the Louisiana territory were actually very poorly defined except in the east and south, where the Mississippi and Red rivers respectively served as "natural barriers". On the west the border was the Rocky Mountains, whatever line that might indicate, and on the north there was even less definition, with mention of a border in the vicinity of the origin of the Mississippi and Missouri rivers. By this century, the Sioux

Indians, who had been in the Michigan region in the early 17th century, then in Minnesota late in that century, had gone on to the Black Hills of South Dakota in the 18th century, driving out the Cheyenne and the Kiowa. In this 19th century they inhabited large areas of the north Great Plains and western prairies of Wisconsin, Iowa, Minnesota, North and South Dakota, as well as some regions in Canada. There were 7 tribes with a total of about 30,000 people. Like the Shawnees, most of them supported the British in the War of 1812. Treaties of one sort and another were signed with the United

States in 1815, 1825, and 1851. (Ref. 53)

Even after the United States acquired Missouri in the Louisiana Purchase, French influence remained dominant in that region. But Americans began to filter in, particularly in the regions of the lead mines at Ste. Genevieve and Potosi. By the time of the Lewis and Clark expedition St. Louis was already notable as the gateway to the Far West. Later St. Joseph, Missouri was the supply center for the gold rush "49ers" and over 50,000 emigrants went through that city of only 3,000 permanent people. (Ref. 54, 55) On his return from Canada the Shawnee Prophet, Tenskwatawa, led his people into Missouri, but they met some resistance from local tribes and the whites and late in 1827 they left St. Louis, en route for Kansas. (Ref. 56) We have mentioned the admission of Missouri as a state of the Union and the politics involved in the "Missouri Compromise" on page 1145. Settlement quickened after the 1820s and many German immigrants arrived in the 1840s and 1850s.

In the early century part of the mid-west was not very enticing. De Tocqueville (Ref. 57) describes all the land which is now Oklahoma, Kansas, southern Nebraska, the panhandle of Texas and eastern Colorado and New Mexico as a desert, generally covered with sand incapable of cultivation' In the decade following 1821 some 271 steamboats were launched on the Mississippi and its tributaries. (Ref. 58) The treeless prairies were not well settled down to 1850, but then new machinery such as McCormick's mechanical reaper, Marsh's harvester, the steel-toothed cultivator, etC., along with the rising price of wheat up to \$2.50 a bushel in 1855 and the building of railroads into the prairie country, stimulated a great proliferation of farmers. Politics was involved in the building of the railroads as well as the bill for the organization of the Great Plains as the "Territory of Nebraska" in 1854 and Stephen Douglas of Illinois was a promoter of both. The political issue was again slavery and its relation to the new Territory and the old Missouri Compromise (see page 1145). The old "Northwest" seethed with indignation over the Kansas-Nebraska Act which nullified the Missouri Compromise and was ripe to form a new anti-slavery party - a new "Republican" one. In Kansas itself, slavery and anti-slavery immigrants actually came to war, anticipating the Civil War and federal troops had to restore order. The two contending groups then each held conventions asking for statehood. The anti-slavery Topeka convention was rejected by the Senate in 1856 and

the Le Compton Constitution was accepted.

Some of the Creeks, Cherokees and other southern Indians had migrated on their own to Oklahoma as early as 1818, and then, of course, Andrew Jackson moved hundreds there during his administration. After the Creeks had relocated in Oklahoma, supposedly not 1% could prove that they had no mixed blood. In many instances, this eventually resulted in a reversal of the old Indian matrilineal society and that created much tension. As early as 1819 the Cherokee Council had specifically prohibited white men from disposing of their Indian wives' property. (Ref. 59) Settling on the hills and meadow lands in the eastern section of Oklahoma territory, the so-called "Five Civilized Tribes"⁷ formed organized states and communities. They clashed some with the Plains Indians, particularly the Osage, but they were pretty well free of white interference before the Civil War.

THE SOUTHWEST (TEXAS, NEW MEXICO & THE MEXICAN WAR)

In 1805 a "neutral ground" was established as a buffer zone between the United States and Mexico in the area between the Sabine River in the west and the Arroyo Hondo, a tributary of the Red River in the east. This soon became a haven for outlaws. In 1820 New Mexico, which then included Arizona and Texas, was a frontier province of Mexico and the latter country encouraged emigration from the United States. In 1821 Stephen F. Austin, taking over a grant which had been given to his father, settled 300 U.S. families in the most fertile region of Texas and by 1834 his colony comprised some 20,000 whites and 2,000 slaves, outnumbering the native Mexicans in Texas by 4 to 1. By the following year there were 28,000 North Americans and to these were soon added swashbucklers like Sam Houston, David Burnet, Branch Archer, Davy Crockett and the Bowie brothers of long knife fame. When Mexican President Santa Anna proclaimed the constitution of 1835, sweeping away state rights within the Mexican domain, the North Americans in Texas, led by Austin, expelled the Mexican garrison from San Antonio de Bexar and seceded, declaring Texas' independence. Santa Anna responded by crossing the Rio Grande with 3,000 men, besieging the 200 Texans at the Alamo fortress, killing them all. Already the colonists had proclaimed an independent Republic of Texas, elected David Gouverneur Burnet

president ad interim and put Generalissimo Sam Houston in charge of troops. The latter defeated Santa Anna near the present day city of Houston and after quarreling with Burnet, he became the next president of the Lone Star Republic, which was recognized by President Jackson of the U.S. in 1837. The white population was barely 50,000 and the finances were poor.

Annexation to the United States was a solution to the Texas problems, but such occurred only after much bickering. It was finally hastily arranged after influential southern editors and politicians feared that the Republic of Texas would abolish slavery and they wanted Texas for a slave state, to balance the northern abolitionist ones. President Tyler arranged the annexation in 1845. The Mexican War, which broke out shortly thereafter may have resulted because President James Polk goaded Mexico into war in order to win California for the U.S. He had tried to buy California, unsuccessfully, so he took advantage of some debt repudiations by Mexico to put further pressure on the Mexican government, for collection. At the same time another Mexican revolution occurred and the new government there was spoiling for a fight. Polk ordered troops across the Rio-Grande on January 13, 1846 and the war was on. It had little support in the east but was popular in the Mississippi Valley, where the army received 49,000 volunteers. In March of 1847 General Winfield Scott landed 3 miles from Vera Cruz with an army, then marched to Mexico City along the old Spanish invasion trail and by September Mexico had surrendered. By the Treaty of Guadalupe Hidalgo (1848) New Mexico (including most of Arizona⁸) was ceded along with Upper California (including San Diego) to the United States and the border of Texas was acknowledged at the Rio Grande. The U.S. assumed the previously disputed, unpaid claims and paid an additional \$15,000,000. (Ref. 61, 62) (See also page 1160 for New Mex.)

THE WEST

The original Oregon Territory included the present day states of Oregon, Washington and Idaho and the province of British Columbia. The final border settlement with Great Britain was made in June 1846 under Polk's administration. Backwoodsmen from Iowa, Missouri, Illinois and Kentucky made up most of the early white settlers and they were originally led there by the Rocky Mountain beaver hunters known as "Mountainy men". Indian

troubles occurred from time to time, including the Cayuse War of 1847. The Cayuse Indians⁹, closely associated with the Nez Perce, but separate, blamed some missionaries for an outbreak of small-pox and killed those in the mission. The white settlers then declared war and subdued the Indians, who were placed on a reservation in 1855.

The Church of Jesus Christ of the Latter-day Saints, commonly called the Mormon Church, was responsible for settling Utah. Brigham Young, heir to Joseph Smith, who was murdered in Illinois in 1844, reached Utah with his followers in 1847. Included were some 4,000 English converts. By 1848 over 5,000 people had arrived and the Utah Territory was organized in 1850 with Young as territorial governor.

The development of Wyoming was closely allied with the fur trade and the great westward migrations. When John Colter, a trapper in the Wyoming Mountains, first returned to St. Louis with tales of the great canyons and steaming geysers of Yellowstone, he was ridiculed. Soon, however, the "Mountain men" entered the country and helped establish the western route to Oregon through South Pass. The trail has hundreds of graves of those who died in blizzards, from starvation, disease and Indian attacks. In the first half of the century Colorado, part of the Spanish territory, was occupied chiefly by Indians, with only the occasional white hunter. The Comanches, Cheyennes, Arapahos and the Kiowas combined forces in 1840 to combat the invasion of their grounds and the settlement of Colorado by whites was accompanied by massacres, lootings and subsequent reprisals.

In Arizona the Pima Indians, whose language was of the Uto-Aztecan linguistic family, were joined early in the century by the Maricopa of the Hokan-Siouan linguistic stock, along the Gila River. That new alliance allowed them to severely defeat their old enemy, the Yumas, by 1857. (Ref. [65](#))

We have mentioned in another connection that the Russians visited San Francisco in 1806 and that they established a short-lived Fort Ross some 100 miles north of the Golden Gate in 1812. In 1826 Yankees arrived overland in the persons of Jedediah Smith and his fellow fur trappers, but colonization remained chiefly Mexican until the 1840s. In 1834 Governor Figueroa removed the San Francisco Solano mission from Franciscan monk control and put Mariano Vallejo in charge. Some 250,000 acres of land thus soon fell to his

personal ownership and eventually he had 50,000 cattle, 24,000 sheep and 8,000 horses of which 1,000 were broken to saddle. He later supported the United States take-over, although he was put in prison for awhile and lost most of his land.

In 1839 the Swiss John Sutter arrived and established a "kingdom" of New Helvetia on a large area in the Sacramento valley. In 1836 a group calling themselves the "Californios" briefly asserted the independence of California and by 1845 had driven out the last Mexican governor. Led by John C. Fremont, Americans set up a republic at Sonoma under the Bear Flag. As news of the U.S.-Mexico war reached there soon afterwards, Commodore John D. Sloat captured Monterey, the capital, and claimed California for the United States. As we have seen above, by the Treaty of Hidalgo, this annexation was made permanent. Even in 1845 almost nothing was known in the United States about California, except for R.H. Dana's Two Years before the Mast and J.E. Fremont's Report of the Exploring Expedition to Oregon and North California. Barely 6,000 whites lived there and the Indians were weak. In January of the same year of the Hidalgo Treaty, a workman in the Sacramento Valley discovered gold in Sutter's millrace and soon the gold rush to the state was on. San Francisco rose in a few months to a city of 20,000, where eggs sold for \$10.00 per dozen. Two years after the gold discovery, California became a non-slave owning state in a package deal, which also admitted Texas and formed territories in New Mexico and Utah. The gold fever was augmented as W.S. Bodie found gold high in the Sierras at "Bodie" in 1859 and struck it really rich in 1876. By 1880 the town of Bodie was roaring with life and death, with 56 saloons, 12,000 people and 1 killing a day. When gold ran out in 1883, Bodie was almost abandoned. (Ref. [66](#), [67](#), [68](#))

Before leaving this section on life in the United States west of the Mississippi before the War between the states, we should give a little additional information about progress in New Mexico, which was the chief center of the Mexican-Spanish civilization north of the Rio Grande. Early in this 19th century, some "North Americans" began to invade the area, including Lt. Zebulon Pike, who subsequently wrote a book which stimulated many Missourians to trek to Sante Fe for trade. Between 1824 and 1825 some 25 wagons left Missouri with about \$35,000 worth of merchandise, which was sold in Sante Fe for \$190,000,000 in gold. Later hundreds of

wagons made the journey and on the return trip many brought mules, which later became identified with the state of Missouri. In 1841 Mirabeau Lamar, the second fully accredited president of the nation of Texas, invited the New Mexicans to join Texas and then raised an army with which to force the union, but the venture failed. (Ref. 69)

*ABRAHAM LINCOLN AND THE WAR BETWEEN THE STATES ****
(Page 1202)

Because there were 4 candidates in the election of 1860, Lincoln won only 39% of the popular vote and carried only 2 counties in the south. (Ref. 70) As soon as he was elected the south rapidly fell prey to its dreamers with their visions of a great Southern Confederacy expanding around the whole Gulf and spreading from sea to sea, teeming with culture and trade and based on slavery. South Carolina declared its independence on the day before Christmas, 1860 and quickly Alabama, Florida and Mississippi followed, with Louisiana and Texas joining by February 1, 1861. Those states formed the Confederate States of America on February 8th, with the southern Congress electing Jefferson Davis president and Alexander H. Stephens as vice-president. The Confederacy was based on the two contentions of states rights and slavery, the former dooming their ability to wage war successfully and the latter preventing all possibilities of-a foreign ally. All of this occurred before President-elect Lincoln had even taken office and nothing was done in Washington until 6 weeks into Lincoln's term. Then multiple attempts at compromise and conciliation were attempted, but failed. Lincoln renewed his party's pledge to respect slavery in those states which had it, but would not acquiesce in secession.

The first gun of the Civil War was fired April 12, 1861 as the Confederate officers started to take Fort Sumter at Charleston, North Carolina. That firing on the flag was enough to arouse patriotism in the north and then events moved swiftly. To win, the north had to completely crush the south and most European experts thought this impossible.

Lincoln's paramount object was to save the Union, not to destroy slavery, but in the fall of 1862 after General Lee's army had been exhausted and depleted at Antietam, he did announce his Emancipation Proclamation to officially free the slaves in the rebel states. The loyal slave states (Delaware, Maryland, Kentucky, West

Virginia and Missouri) only later freed their slaves by state action.

Mostly boys fought the Civil War, it being almost certain that the majority on both sides were under 21, many as young as 15. Even the officers were young, some major generals being in their 20s. At least 540,000 Americans (population in 1860 was over 31,000,000) lost their lives in or as a result of that war. The average soldier was sick enough 2 or 3 times each year to be sent to a hospital, which was of ten a more dangerous place than the battlefield. Antisepsis was unknown, anesthetics not always available and abdominal wounds and major amputations meant probable death. The south had the best medical corps as a result of the work of their capable surgeon-general, Dr. Samuel Preston Moore, but neither side had an effective transportation system early and the south never developed one. In the last 2 years of the war the use of anesthetics finally became routine in the northern armies only. (Ref. 71) The commander of the Confederate Navy had a son killed in the Union Navy and Mrs. Lincoln's three brothers died fighting for the south.

In this outline we shall not attempt to record the campaigns and battles of this war. In spite of a series of costly land campaigns over two years, the Union won only after the South had been starved by a Union blockade and split by the Mississippi. The best officers on both sides were West Point graduates, but Lincoln may have been the best strategist of them all. He offered command of the Union forces at the beginning to General Robert E. Lee and Lee was against slavery, but he was a fifth generation Virginian and felt that he had to stay with his state. Most of the fighting was done in rough, forested country. Antietam, Gettysburg and Fredericksburg were the only important battles in open country. General Lee persistently underestimated the effect of rifle fire over open ground and that is why his attacks failed at Antietam and Gettysburg. The Union's .58 caliber rifle, 4' 8" long, fired by a percussion cap, could be fired at 3 rounds per minute and could kill at over 1/2 mile. Mines and submarines were used for defense in shoal waters. A new innovation was air observation from balloons. Southern hopes of a quick victory were based on the expectation that the North would not fight and that England, needing cotton, would go to war to help the South. Both assumptions were in error, although warships for the Confederacy were built in both British and French ports.

During this war, Lincoln wielded a greater power than any president up to the time of Franklin D. Roosevelt and in actuality he

was a dictator, from the standpoint of constitutional law. Under one of his proclamations, over 13,000 persons were arrested and confined by military authority for offenses ranging from theft of government property to treason. Lincoln had many enemies in the north, ranging from the religious Osgoodites, who considered him the Beast of the Book of Revelations, to the defeatists "Copperheads", who only wanted to negotiate and finally the "barnburning" Knights of the Golden Circle in the middle west. Lincoln also enraged the Congress by arbitrary acts that went of ten beyond the Constitution or the authority which Congress felt that he had. Until his death he was never wildly popular.

Every school child knows of General Lee's surrender to General Ulysses Grant at Appomattox on April 12, 1865 and of Lincoln's assassination at Ford's theater on the night of April 1 4th at the hand of an actor, John Wilkes Booth, declared to be insane. Some southern armies and vessels surrendered at various times subsequently, the last on November 6th, when the C.S.S. Shenandoah surrendered to British authorities. (Ref. [72](#), [73](#))

Map taken from Ref. 97

THE IMMEDIATE EFFECTS OF THE CIVIL WAR

In the North

Production was stimulated in the north and in Philadelphia alone some 180 factories were built within 3 years. Immigration from Europe increased with 800,000 people coming within 5 years. Labor saving devices invented at that time, or in general use, included the Howe sewing machine, the Gordon McKay shoe machine and the mechanical reaper. Pennsylvania oil production went up to 128,000,000 gallons in 3 years. Refining methods allowed kerosene glass lamps to light American and English farmhouses. The Homestead Act in 1862 stimulated westward migration and opened up new prairie farmlands. Great fortunes were started - Armour (meatpacking), Havemeyer (sugar), Remington (guns), Carnegie (iron and steel), Borden (milk) and Marshall Field (merchandise). 40,000,000 bushels of wheat and flour were exported in 1861. New states were added during and after the civil conflict. (See map on previous page). Some 15 new colleges were established, including Vassar, Massachusetts Institute of Technology, La Salle, Cornell and Swarthmore. At the end of the war, after the Confederate General Early had raided up to within

sight of the capitol, there was inflation and paper dollars fell 2/3 in value-and the cost of living soared.

In the South

The war effort absorbed all. Transportation was wanting so that food and supply distribution was very bad, both during and after the war. Some areas starved, while others still had plenty. Texas was geographically removed from it all and uninvaded (except by Comanches) until 1865. Luxuries were imported from Mexico.

THE RECONSTRUCTION PERIOD. 1865 - 1877

There was an extremely rapid demobilization of Union forces and, amazingly, generalized acceptance of the war's result by the south. Of several thousand southerners who refused to return to allegiance to the nation, a large part went to Texas, with a few to Europe, Brazil and Mexico. Reconstruction is still a controversial subject in American history, often distorted by emotion. Still it was a deplorable and tragic period. For up to three years no compulsion was put on the southern states to enfranchise the Negro, but during that time nothing was done to prepare him for citizenship either and much was done to humiliate him and keep him "down". In spite of the stereotype picture of the northern Republicans beating and robbing the south, in actuality millions of dollars of northern money poured into the south for food, education and various charities. Congress, too, performed wonders in relief, but not in racial adjustments. President ANDREW JOHNSON appointed provisional civil governors in every former Confederate state where Lincoln had not already done so. The South replaced slavery with the "Black Codes", which everywhere kept the Negro a second class citizen.

In March, 1867, by Act of Congress, military rule replaced the civil administrations of the rebel states. The Union military enrolled a new electorate and proceeded to set up reconstructed state governments. This was accomplished by 1870. Those radical governments persisted in some states for up to 8 years - Louisiana, Florida and Texas - and while they were infamous for some types of corruption, they also accomplished some good legislation that resulted in rebuilding schools, roads, railroads, etc. But overall, those governments were bad and in the end neither the freed Negroes nor the Republican party profited.

More disgraceful activities followed - the impeachment of

President Johnson¹⁰ and the rise of the Ku Klux Klan.

The election of the war hero, GENERAL ULYSSES S. GRANT to the presidency started a dynasty of Republicans, which lasted almost to the end of the century. Unfortunately, below the presidency the corruption of the party was abominable. The Civil War, like every other war, had broken down morals and everyone was out to "make a fast buck". In addition stock speculation, over-rapid expansion of the agricultural west and a world-wide drop in prices brought on the panic of 1873 and a depression which lasted 3 years. Corruption and boss rule continued throughout the century. (Ref. [74](#))

EXPANSION, DEVELOPMENT, AND SOCIAL CHANGES IN THE LAST 30 YEARS OF THE 19TH CENTURY

An interesting feature of the last half of the century was the development of the Mormon culture in Utah. When Brigham Young had arrived in that area in 1841 it was the northern-most province of Mexico. The Mormons found a desert and made it over into one of the most fertile areas of the west and for many years they kept to themselves and practiced their religion, which included polygamy. When PRESIDENT GROVER CLEVELAND signed the act which made Utah the 45th state in the 1890s, however, polygamy had to stop. Some of the Mormons migrated to northern Mexico, rather than live under the Union's laws. (Ref. [75](#))

During the period from 1850 to 1870 the high plains states and the Rocky Mountain areas enjoyed a very moist period, but that was followed by decades of drought, with a great reduction of grass. That had a serious effect on the cattle herds, with a drastic reduction in numbers and it would have been the same for the buffalo herds, reducing them by 50 to 70%, even if they hadn't been over hunted. The Sioux Indians of the Dakotas, who were originally farmers, only became buffalo hunters shortly before their extermination late in this century. The buffalo herds were cut in two by the railroad as it went west in the late 1860s. Up to the time of the Civil War, the eastern (Union Pacific) railroad went only to Council Bluffs, Iowa and there was a Central Pacific RR running north and southwest of the Sierras. In 1866 Congress allowed the two commercial companies to build, one from each direction, and meet wherever they chanced. For a single mile of track they needed 40 cars to carry 400 tons of rail and timber (for- ties, bridges, etc.), fuel and food. The Central Pacific had to get its materials, except for

timber, by sea - some 12,000 miles around Cape Horn. Eastern work gangs were chiefly new immigrants, mainly Irish, using plenty of whiskey, while the western crews were primarily Chinese, needing tea.

The United States government gave the companies a subsidy of \$16,000 per mile of track on the prairie and \$48,000 per mile in the mountains. The two tracks met at Promontory Point, Utah on May 10, 1869. In the first 2 decades of operation, freight rates were lowered 500% and travel time reduced by 900%. By 1890 the rail network was larger than in all Europe, including the British Isles and Russia. (Ref. [76](#), [77](#), [78](#), [79](#))

In 1867 at the end of a spur railroad line, Joseph McCoy bought the town of Abilene, Kansas for \$5 an acre and then spent \$5,000 for various kinds of promotions to get cattle there from Texas for shipment east. The result was the Chisholm Trail, beginning in south Texas near the Gulf and going through Oklahoma to Abilene. At the end of the Civil War, herds of 2,000 to 3,000 head of long-horned cattle moved regularly up this trail, from the matrix of some 3,000,000 of those cattle in Texas. Their ancestors had been brought over in the second voyage of Columbus. A good drive to Kansas was completed in three months. In the first 4 years McCoy shipped over 2,000,000 cattle out of his stock yards, greatly exceeding even his own boasts and it is probable that this was the origin of the expression "the real McCoy". In the 1860s and 1870s there were multiple cowtowns with cowboys, claim jumpers, fugitives, prostitutes and the natural enemies - cattlemen and sheep men. The death rate in those cow towns was proportionately 10 or 20 times as high as New York City today. Some of the mining towns were even worse. But the Great Plains, finally cleared of Indians and buffalo, were open for cattle. Between 1860 and 1880 even Kansas increased its cattle herds 16 fold and Nebraska by 30 times. In 1886 Wyoming had 9,000,000 cattle, although many owners went broke in the financial panic of 1885-87) (Ref. [80](#), [81](#))

In 1840 it took 233 man-hours of work to grow 100 bushels of wheat, but in 1920 it took only 80 man-hours. Part of that was due to the great increase in the number of draft horses, rising from 6,200,000 in 1850 to over 15,500,000 by 1900. American grain sent to Europe was cheaper than that grown locally and European agriculture was disrupted.

One result of that was Norwegian emigration to America. Social

changes were in part related to various immigration patterns. The proportion of British Isle immigrants fell from 45% in 1861-1870 to 18% in 1891-1900 while that of - Russians and southern Europeans rose from 0.1% to 50% in the same period. Most of the newcomers went to the northeast so that in 1900 86% of the foreign-born were in states north of the Ohio River and east of the Mississippi.

The first significant labor organization was the "Knights of Labor", founded in 1869 and winning the first railroad strike in 1884. Marxists and anarchists started other unions, with the latter fanning the infamous Haymarket Square riot in 1886, as part of a Chicago strike. In 1886 Samuel Gompers founded the American Federation of Labor, which gradually succeeded the Knights as the spearhead of the American Labor movement. (Ref. [82](#), [83](#))

We have previously mentioned the Homestead Law of 1862 by which anyone could obtain 160 acres of western land by agreeing to work it and produce a crop within 5 years. This was made possible by three agricultural advancements, the windmill, a special plow¹¹ for caked prairie soil invented by John Deere and barbed wire, which would keep cattle out. Of course the latter, in itself, provoked seemingly endless atrocities and battles between the farmers and the scandalized cattlemen. But in the final analysis, transportation was the key to the development of the west. By the end of the century more than 175,000 miles of railroad track had been laid, the Pullman sleeping car had been invented, along with the Westinghouse brake and refrigerator car. The Union Pacific, Central Pacific, Northern Pacific, Southern Pacific and the Santa Fe railroads were all aided by government grants and were well established in this period. The terminals of these lines - Omaha. Kansas City, Oakland, Portland, Seattle and Tacoma - all became metropolitan cities within 30 years, while the populations of all the western states increased by 5 to 10 fold. Of course Chicago, a terminal not only for railroads but also for river and lake traffic from the Great Lakes region, became one of the busiest trade centers of the world.

Alexander Graham Bell invented the telephone in 1876 and Thomas A. Edison the incandescent light bulb in 1879. By 1885 the Bell Telephone Company had over 134,000 subscribers in the United States. Shipping tonnage on the Great Lakes increased from 100,000 in 1865 to 25,000,000 in 1901, with wheat and iron forming the chief cargoes. Pittsburgh became the center of the northern

Appalachian coal fields and Birmingham, Alabama the hub of the southern Appalachian fields. Steel production reached 10,000,000 tons by 1900, outstripping the British output, yet farm products still greatly exceeded those of industry.

But over-production of goods and raw materials, over-capitalization of railroads and feverish speculation in securities brought financial panics in 1873 and 1893. After the latter, particularly, there were labor strikes with terrible violence. Trusts were formed, including the railroads and there were some very questionable business practices. The Interstate Commerce Act of 1887 was the federal government's first attempt to regulate the railroads and break up the trusts. The first ready-made plates for use in photography were developed in the 1880s and Henry Ford made his first twin-cylinder, water-cooled, 25 mile an hour car in 1896, although mass production did not materialize until after the turn of the century. (Ref. [84](#))

In spite of the financial panic of 1873, factories tripled their output between 1877 and 1892 so that the United States became the leading industrial power of the world. The panic of 1893 occurred when the Democratic Party was in power, and it subsequently became stigmatized as the party of depression. Born as the son of a poor weaver in Scotland, Andrew Carnegie went from oil to building to buying up iron and steel mills and then to railroads and steamship lines. His monopoly of steel helped him to weather the 1892-3 depression and 9 years later he sold his steel interests out to the United States Steel Corporation for \$250,000,000, after which he started his career of fabulous philanthropy. (Ref. [85](#), [86](#))

A major step in medicine occurred with the establishment in 1893 of the Johns Hopkins University School of Medicine, with a remarkable faculty, which included the pathologist William H. Welch who was among the first to introduce microscopy and bacteriology into the country, the great clinician William Osler and surgeon William S. Halsted. Within a few years Hopkins' former students and professors carried the Hopkins' system to all parts of the United States. (Ref. [87](#))

On the political scene, RUTHERFORD B. HAYES was announced president in a disputed election by action of the National Electoral Commission by a strict party vote. Hayes refused to run again in 1880 and a "dark horse" GENERAL JAMES A. GARFIELD ran away

with the nomination and finally the election. On his death by assassination 4 months later, his vice-president, CHESTER ARTHUR assumed office. Reform in the civil service commission regulation was made by law in 1883. Overall, some believe Arthur's was the best Republican administration between Lincoln and Theodore Roosevelt, but in the 1884 election, the Democrat GROVER CLEVELAND won the office. But Cleveland made many enemies, being rude to the press, offending Union veterans, vetoing hundreds of pension bills and trying to stop the "free coinage" of silver under the Bland-Allison Act. Cleveland lost the next election (1888) to the Republican BENJAMIN HARRISON, who made a dignified but ineffective president and his Congress wanted no legislation other than raids on the treasury and hold-ups of the consumer. As a result, Cleveland was returned for a second term in the elections of 1892. There followed the worst industrial depression since the 1870s. It was a period of soup kitchens, ragged armies of unemployed and desperate strikes. The party in power is always blamed for all hard times, so in 1894 the Republicans won again, with WILLIAM McKINLEY defeating the "boy orator of the Platte", William Jennings Bryan.

THE SPANISH-AMERICAN WAR

In 1897 Cuba was in revolt against Spain's inept rule and American journalists, such as William Randolph Hearst and Joseph Pulitzer, in a race for circulation, played up some atrocities and Cuban concentration camps in the American press. Soon there was a cry to "do something" about Cuba. Just as a new Spanish premiere did promise Cuba a measure of home rule and reform, however, the U.S.S. Maine battleship was mysteriously blown up in Havana harbor, with heavy loss of life. The clamor for war with Spain then became more than the weak President McKinley could stand and in place of accepting a peaceful solution already offered by Spain, which even included ceding Cuba to the U.S., McKinley allowed Congress to declare war in April of 1898. The American fleets immediately went to work, with one Atlantic squadron blockading Havana and another protecting the U.S. coast. Commodore Dewey took the Pacific fleet into Manila Bay in the Philippines and without losing a single man reduced the Spanish fleet there to junk. The obsolete Spanish vessels there were no match for the newer American ships. Even so, the United States Naval bombardments in

both Manila and the later Santiago Bay of Cuba, proved embarrassingly inaccurate, leading to a world-wide effort to improve long-range gunnery. (Ref. 88) After 10 weeks of fighting the U.S. had wrested an American empire from Spain. The ground war to "save Cuba" was a popular one, but sad because of lack of preparedness of the continental forces. For every one of the 289 men killed in battle, 13 men died of disease. If the Spanish forces had been in any way organized and reasonably led, the ragged U.S. forces could never have invaded the island, but they did. Then when the Spanish navy sailed out of Santiago Bay to be destroyed by the guns of Admiral Sampson's Atlantic squadron in July of 1898 the war was over. At the formal Treaty of Paris in the fall of that year, both Cuba and Porto Rico, as well as the Philippines, became U.S. possessions. For the latter, this country did give Spain \$2,000,000.

THE INDIAN PROBLEM IN THE LAST HALF OF THE CENTURY

By way of recapitulation we should mention that many Indian problems began after the United States acquired Florida through the treaty ratified in 1821. Then Monroe's bowing to the demands of land craving "westerners" and Jackson's follow-up policies resulted in the attempt to remove all Indians to regions west of the Mississippi. This began in the old "Northwest" and the lower South. We have seen that the Seminoles of Florida refused to move and under the leadership of Osceola, retreated to the fastness of the everglades, where they remain in some 200,000 acres of swampland today. The only "western" statesman to denounce these shabby activities was Henry Clay. From 1853 to 1856 there were 52 treaties signed, mostly with Indian nations west of the Mississippi, resulting in the addition of 174,000,000 acres to the national domain. There were 200,000 Indians between the Mississippi and the Rocky Mountains at the beginning of the century.

The Indian story of the second half of the century, however, is that of the Great Plains tribes and their attempts to prevent white settlements. The Sioux, Blackfoot, Crow, Cheyenne, Arapaho, Nez Perce¹², Comanche, Apache, Ute and Kiowa were all well armed and had swift horses. The universal Indian sign language only became manifest at that time on the Great Plains, when tribes speaking different languages had to communicate and collaborate, although it had actually originated at an earlier date among the

Westos, Shawnees and other Southern Indians. (Ref. 89) The wanton destruction of the buffalo, the Colt six-shooter and the white man's diseases were all fatal to the plains Indians. United, these Indians might have been invincible, but they were themselves divided and were defeated piecemeal, although at times the Indians seemed to be winning. When 60,000 Texans went to the Confederate army, it left scarcely 27,000 men behind to defend the entire state and the Comanches and Kiowas, among others, turned central Texas into a disaster area. This occurred even after prospectors in the 1849 gold rush had brought cholera to those tribes as they poured through their territories. Some of the tribes lost 50% of their people. The Comanches, who had gone south from Wyoming about 1700, were excellent horsemen, led by Quanah Parker in the late 1860s. Parker was never actually defeated in battle, but in 1875 he gave up his wars and accepted reservation life, leading the last of his Kwahadie clan and their 1,500 horses to Fort Sill, Oklahoma. He later became a business man, leasing land to Burk Burnett, Dan Waggoner and others in north Texas. But he also proselytized the peyote cult, which became known as the focus of the native American church. (Ref. 90)

The various tribes occupied and roamed over large territories at times and it will be easier to discuss them by tribes, rather than narrowly by regions. The Shoshones of Wyoming territory were linguistically and culturally related to the Utes and Paiutes and were actually great warriors against their Indian enemies (Sioux, Crows, Blackfoot, Cheyenne and Arapahos), but they made friends with the whites of the Lewis and Clark Expedition and later helped the Mormons to make safe passage. Fort Washakie was named after the great Shoshone chief. The Blackfoot occupied part of Wyoming and Montana territory, while the Nes Percel were primarily in Idaho. The Utes, some of whom were also friendly to whites, were primarily in Colorado, where there were no U.S. forts.

The Cheyenne and Sioux were more widely distributed, with the later especially spread from the Dakota territory through Montana, Wyoming and Nebraska. The U.S. had many forts in those areas, including Forts Buford, Abraham Lincoln, Yates, Meade and Randall in the Dakota Territory, Fort Kearney in Nebraska and Fort Ellis in Montana. Chief Sitting Bull was a Hunkpapa Sioux band warrior and Crazy Horse was an Oglala Sioux. In the 1860s Washington gave the Hunkpapas a large reservation (along with some Cheyenne

and Arapaho clans) encompassing the entire western 1/2 of South Dakota and the Powder River country to west of the Big Horn Mountains to be unceded Indian Territory, off limits to all white people. This was the Treaty of Laramie. But the Northern Pacific Railroad went through then and Lt. Col. George Armstrong Custer was sent with reconnaissance guards. He reported that there was gold in the Black Hills, sacred to the Sioux. By 1875 there were over 1,000 prospectors there and Washington took away the uncaded land. But Chief Sitting Bull ignored orders to go to a reservation. Consequently in 1876 three columns of army were sent out to "get" Sitting Bull. He did-a "scarlet blanket" ceremony to his god, which involved SO cuts of skin off each arm and then 24 hours of dancing. The now General Custer led one of the three forces of the U.S. and came across the trail of the Indians as they were moving. Recklessly and against orders, he attacked them. In the battle Custer was killed and the core of the 7th Cavalry was destroyed. Later the Sioux were defeated by Colonel Nelson Miles and Sitting Bull was taken prisoner. Still later, of course, he was famous with Bill Cody's Wild West Show, only to be killed in 1896 by Indian policemen, who had come to arrest him as a high priest of a ghost dance movement. After the capture of Sitting Bull, the Sioux Chief Big Foot, with 300 followers, escaped to the Badlands of South Dakota. They, too, were captured and taken to Wounded Knee Creek. When the soldiers were attempting to disarm the Indians gun fire broke out, the Indians were massacred and the bodies left on the ground to freeze. This is yet today a source of much Indian grievance and discontent. (Ref. 92)

In the meantime, by 1870 a new tanning process developed in 1870, made buffalo hides commercially workable and therefore buffalo hunting a year around business. At the same time there appeared the high powered Sharps' rifle that could kill a full grown buffalo at 500 yards. A top marksman might kill 200 a day in the Texas panhandle. This marked the end of the buffalo and of the remaining Indians. Buffalo slaughter at more than a million a year meant that by 1886 only about 1,000 remained on the plains. (Ref. 93)

Next we must turn our attention to the great southwest, where in the middle of the century some 7,000 Apaches lived in Arizona, New and Old Mexico. There were several bands - the White Mountain group, the Aravaipa Apache, the Mimbres and the

Chiricahuas being the most numerous. The latter group was perhaps the most formidable and was led by Chief Cochise. In Mexico in 1837 and after, the states of Chihuahua and Sonora paid bounty of 100 pesos for a male Apache scalp, 50 for a woman's and 25 for a child. The Apache bows were lethal at 100 yards and they used slings which could hurl stones 150 yards, as well as war clubs and lances. Trained as long distance runners, they could cover 70 miles a day on foot in tough terrain. Chief Geronimo was made most vicious by a massacre of many of his people by the Mexican General Carrasco at Janos, Mexico. By the 1870s there were 10,000 white miners, ranchers and townsmen in Arizona and by 1880 the number had risen to 37,000, about 10 times the Indian population. In the 1880s 5,000 Apaches were forced on to the San Carlos reservation in southern Arizona where they were supposed to farm, but they didn't know how. Geronimo repeatedly escaped to Mexico and returned to raid. In 1886 General Nelson Miles took 5,000 troops to hunt him down and Geronimo finally gave himself up, after his family had been sent to Florida. In 1894 he and the remaining Chiricahuas were taken to Ft. Sill, where most of them soon died of disease. (Ref. 94)

The Zunis of the Southwest were very intractable and had repelled the Spaniards in earlier years, time and time again. Palmer (Ref. 95) says that they derived originally from two parental stocks, one from the north and one from the southwest, but their language is distinct and intelligible to no other Indian tribe. They have succeeded in preserving their myths and traditions in a "series of sacred epics, a sort of inchoate Bible"¹³. These facts are particularly interesting in view of Barry Fell's hypothesis discussed on page 210, concerning the possible relationship of the Zuni and their language with Libyan sailors. Information about some of the southwestern Indians has been slow in coming to light. In Rose Palmer's book, *The North American Indians*, (Ref. 96) written under the Smithsonian auspices as late as 1949, she does not even mention the Hohokam and Anasazi. She does mention "Basket Makers", stating that some cave-like dwellings in deep recesses of cliffs had been abandoned long before the Spaniards came. *** (Page 1202)

The Ute, Comanche, Hopi and Pima Shoshonean languages are related to the Nahautl group of languages of Mexico, which includes Aztec. Some of these Shoshonean Athapaskan groups had early been isolated by mountains and deserts. The Mohave, who tattooed their

bodies and wore practically no clothes, along with the Yuma, formed a connecting link with the southwest tribes. They had rafts and planked canoes sealed with asphalt.

In the far west, the Yuroks and Hupa (also Hoopa) of northern California, like the northwest coastal Indians, were highly civilized, using bows and arrows, body armor of thick elk hide and dugout canoes with 6 to 8- paddles that could even be used in the ocean. They ate salmon, mussels, seaweed (for salt), whale meat and acorns. The latter were dried, pounded into meal, treated with hot water to remove the tannic acid and then cooked in closely woven baskets, with stirring, until a tasteless gruel resulted. They grew and smoked tobacco. Although those two California tribes spoke entirely different languages, they were friendly and cooperative with each other. The Hupa, living along the Trinity River, did not even know of white men until the gold rush days of 1850. (Ref. 98)

MEXICO, CENTRAL AMERICA AND THE CARIBBEAN

The Mexican Revolution actually began in 1810 when Miguel Hidalgo, a priest, called on his Indian followers to rise against their local rulers. Spanish rule had already deteriorated as Napoleon had subdued Spain. But Mexico City was even then a rich capital, with caravans of mules with noisy bells, carrying merchandise and maize flour daily to the city. (Ref. 99) Various governors appeared and disappeared in Mexico in that time of struggle between classes and among ambitious, selfish, military men. The Mexicans copied the United States constitution in 1824 almost exactly, but they could not make it function properly because of constant collisions of state and national sovereignties, with the result that by the 1830s they had alternated between anarchy and military despotism. (Ref. 100) War with Texas in 1835 and with the United States in 1845-48 resulted in the loss of much land. (See pages 1157 and 1158). Mexico had 30 presidents in its first 50 years. (Ref. 101) Benito Juarez, a Zapotec Indian, finally came into power and tried to improve his country's economic situation and lessen the political power of the Church, but that era was interrupted by Napoleon III's placing the Austrian Maximilian as Emperor of Mexico, supported by French troops, in opposition to Juarez. By 1867, however, Juarez had run the French out and subordinated church and state to a

secular administration. As the French deserted, Maximilian was captured and shot. The last third of the century saw Porfirio Diaz as dictator of Mexico, when the liberals had been unable to give Mexico prosperity. Diaz allowed spectacular economic progress, but with foreign capital and leaving the populace poorer than ever. (Ref. 102)

Elsewhere in Central America there was much confusion. For awhile there was a Confederation of Central America including Guatemala, Honduras, Nicaragua, Costa Rica, San Salvador and Quezaltango, although the first four soon declared themselves independent of the federal government. In the first half of the century the main road to Guatemala City was almost impassable even with mules. The people, even the whites, went about essentially naked, living on tortillas, corn, dark beans and cigars. Polygamy was common, even among nominal Catholics. There were many gigantic Catholic churches desolate and deteriorating in the jungle, evidence of an expiring people. When a cholera epidemic struck in 1838 the priests told the Indians that foreigners in San Salvador had caused it, leading to further political confusion. (Ref. 103) Stephens (Ref. 104) described the bull-fights in Yucatan about 1840 as "brutal".

Nicaragua was the seat of multiple incidents, involving British, U.S. and local revolutionaries and Latin America has been suspicious of U.S. activities ever since. President Polk obtained the right of transit across Panama by treaty with Colombia in 1840 and the Panama Railway was completed in 1855, with American capital. The old Mayan ruins in both Yucatan and what is now Honduras were investigated and publicized by John Stephens from the United States. Belize had 6,000 people, 4,000 of which were black, mahogany cutters, but there was complete integration of the races in that British settlement. The old Indian 40 feet long canoes with cabins still plied the rivers, but were now manned by Negroes. The previously fierce, cannibalistic Caribs of the coast were now civilized and most were Catholics, although they had not mixed with the Spanish conquerors. (Ref. 105) There were three main political parties in Central America, one lead by Morazan, former president of the Republic of San Salvador, a second by the mulatto Ferrara in Honduras and finally Carrera, an Indian of Guatemala. The latter's country, although dominated by dictators through most of the century did manage to supply the Spanish with sugar, cocoa

and indigo.

Early in the century European introduced disease took a high toll throughout Mexico and Central America in general. The native population of Mexico had been seriously depleted and in some areas, such as Veracruz in particular, there was a human vacuum which was resettled by French and Italian farmers. A big step in the control of tropical disease was made in 1881 by the Cuban physician, Carlos Finlay, as he defined the *Aedes aegypti* mosquito as the insect vector in yellow fever. More complete details were then developed by a United States commission working in Cuba under Walter Reed, at about the turn of the century. (Ref. 106)

In the Caribbean, Cuba remained under the control of Spain, even as most of the remainder of the Spanish Empire broke away. - This is not to say that there were not uprisings. A Ten Years War was initiated by Carlos Manuel de Despedes, but it was a revolt which was finally crushed. Cuba had 55 steam engines by 1860. It was the largest exporter of sugar and the richest colony in the world. (Ref. 107) But still the people were not happy and there was much bitterness which finally resulted in- 1895 with the brilliant poet Mose Marti becoming the chief spokesman for a new and stronger revolt. We have seen in a special segment above how the United States became involved in this uprising which terminated in the Spanish American War. Jamaica continued to have intermittent revolts against the white colonials. When slavery was abolished in 1833 the sugar industry declined. Overpopulation and the economic and social situations generated tension and unrest, leading to more severe riots. About 95% of the population was Negro or part-Negro and many left the island to seek employment elsewhere in the Caribbean or the United States.

The story of Haiti is somewhat involved. At the end of the last century Spain had ceded its part of the island, Santo Domingo, to France, but in 1801 the remarkable Negro leader, Toussaint L 'Ouverture conquered it. Although an expedition sent by Napoleon in

1802 failed to retake the island, Touissant was captured by trickery and died in a French prison. But Haiti remained independent and the remaining whites were expelled. Santo Domingo was brought under Haitian control by J.P. Boyer in the 1840s, but actually anarchy persisted, with mulattos fighting against Negroes. The eastern, originally Spanish part of the island

never was fully assimilated and eventually out of the turmoil there emerged the Dominican Republic. (Ref. [108](#))

SOUTH AMERICA

From 1815 to 1822 there was an amazing eruption of new nations in South America. In Argentina, after first having to fight off French, Portuguese and Dutch, a revolutionary movement of 1810 gave liberals an opportunity to reform the country socially and economically, but they failed. Jose de San Martin kept the revolutionary flame alive in a remote province and in 1817 led a famous march across the Andes with 3,500 men, to set up a new government in Chile. They then went on by sea to attack Lima, Peru. Back home in Argentina, in mid-century a bloody dictator, Juan Manuel de Rosas, took control, giving enormous ranches to his army veterans. Because of his great horsemanship, he himself was a respected gaucho¹⁴ Rosas was overthrown by Jose de Urquiza of the army in the Battle of Caseros in 1852 and the winner became chief executive, with a federal constitution. Immigration accounted for about 1/2 the population growth in this century. 30 % of the inhabitants lived in Buenos Aires and that city would not join the Argentine federation and there were intermittent civil wars between that city and province with the rest of Argentina through 1880, when the problems were finally solved under the presidency of Julio Roca. In the meantime, alliances had been concluded with Uruguay and Brazil and there had been a war with Paraguay between 1865 and 1870. During the administrations of Domingo Sarmiento (1868-74) and Nicolas Avellaneda (1874-80) education, commerce and immigration were encouraged and the census of 1869 showed over 1,700,000 people. English sheep were introduced to the country in 1840 and short-horn bulls in 1848. (Ref. [109](#), [110](#), [111](#))

Chile organized as a republic under the son of an Irish officer, Bernardo O'Higgins, in 1818. The principal result of the Chilean revolution was the transfer of economic and social control from a Spanish-led society to one dominated by conservative Creoles, as the people would not give up religious processions, cockfighting and gambling and the aristocracy kept their privileged positions and large estates. As with the other South American nations, civil

war occurred in 1829 and 1830 and wars with neighbors developed throughout the century. The greatest of those was the War of the Pacific with Chile fighting against Peru and Bolivia from 1879 to 1884. Chilean troops were everywhere successful and Chile gained possession of the Bolivian littoral and southern Peruvian coast, with rich nitrate territories of great economic importance. This region ran all along the Pacific coast and essentially blocked Bolivia from the sea. (Ref. [112](#)) The last civil war occurred in 1891 and as the century ended war with Argentina was narrowly averted.

To go back in time to the early century, having established their own independence from Spain, Argentina and Chile went to the aid of Peru in 1821, with San Martin leading the army and Admiral Cochrane cooperating with the Chilean navy. In 1822 San Martin and Simon Bolivar met in Guayaquil at a time when only one Spanish army was left in the field. That army surrendered at Ayacucho in 1824. Simon Bolivar had dreamed of one great state of Colombia, but it was not to be and Ecuador, Colombia and Venezuela went their separate ways. Bolivia became independent under Bolivar in 1825 as a country some 21/2 times its present size. It was the rich nitrate and copper deposits along the coast that tempted Chile to seize that portion in the War of the Pacific (see paragraph above). In the 20th century other neighbors were to further chew up the borders of hapless Bolivia. Things were not a whole lot better in Colombia. In the seventy years just prior to 1903 that country had 17 civil wars, with conservatives, liberals, Catholics and separatists all involved from time to time. (Ref. [113](#)) Originally a part of Colombia, Panama was given a federal status by Colombian constitutional amendment in 1855, although Panama did not declare its complete independence until after the turn of the century. Large oil reserves were found in Venezuela in 1870 and in the 20th century this has greatly increased that nation's importance in the world. (Ref. [114](#))

Portugal acted differently from Spain and met the demands of local autonomy. (Ref. [115](#)) When Prince Regent Dom Joao, fleeing from Napoleon, landed in Rio in 1808 that city became capital of an empire including, besides Brazil itself, various Atlantic Islands, Angola and Mozambique in Africa and scattered areas in China, India and Oceania. Brazilian ports were opened; manufacture of iron and textiles undertaken; a bank, naval college, medical faculty, library and printing press were established. European artists and

scientists arrived. Even so, as late as 1820 Brazil, in spite of gold and diamond mines and the Portuguese empire, was a poor, oppressed country, thinly populated and with little or no intellectual potential. (Ref. 116) Dom Joao returned to Portugal in 1821 with most of the cash from the Bank of Brazil, leaving Crown Prince Pedro to govern. On October 12, 1822 the Senate proclaimed him as constitutional Emperor of Brazil as Pedro I. Opposition to his autocratic ways and his obvious primary interest in the mother country finally forced his abdication in favor of his 5 year old son, Pedro II. Between 1840 and 1889 provincial revolts were gradually brought to a close and a period of order and progress was initiated. Commerce and industry expanded, 6,000 miles of railways were constructed by 1889, gold mines were further developed and sugar and rubber production were promoted. In 1872 the population was over 10,000,000, including 1,500,000 slaves. These were emancipated in 1888. Things changed in November of 1889 when the army, headed by General Manoel Deodoro da Fonseca, revolted and deposed the emperor and proclaimed a republic. Fonseca was elected president in 1891.

Map taken from Reference 97

After Peru was liberated from Spain by Bolivar, there was still no real political stability and civil strife continued until 1845 when Rarnon Castilla emerged as one of the strong men supported by the military. Even another small war with Spain occurred between 1863 and 1871 over some small off-shore islands. Before the war's end Jose Balta had become president and had begun some material expansion of Peru. Unfortunately Peru joined the wrong side in the War of the Pacific, mentioned above, and at the end lost the province of Tarapaca and after long haggling, the coastal portions of two more provinces.

In 1816 Jose Rodriquez de Francia made himself perpetual dictator of Paraguay as well as head of the Paraguayan Church and sealed that country off from the rest of the world until his death in 1840. He was succeeded by another dictator, Carlos Antonio Lopez, who held absolute power until 1862. His son, Francisco Solano Lopez succeeded him and attempted to increase the power of the country by vigorous means. The population had increased to over 1,000,000 and the first railway was constructed about that time. Lopez's ambitions for additional territory, however, brought about war with Brazil, Argentina and Uruguay (The War of the Triple

Alliance) between 1865 and 1870 and the Paraguayan nation was virtually annihilated, with only about 28,000 men and some 200,000 women surviving. A long period of instability followed, with the economy slow in recovering.

In general we may say that the penchant for alternating dictatorships with various odd types of democracy has continued throughout Latin America even through the 20th century.

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1. Strangely enough, Papineau took no part in the actual uprisings, as he first fled to the United States for help and thwarted there, went on to France. (Ref. 7)
2. Tsimshian culture was typical of Northwest Coast Indians and similar to that of the Haida and the Tlingit. (Ref. 8)
3. Quotation from Edmunds (Ref. 22), page 115)
4. When the president ordered the militia of the northern states to the frontiers, Connecticut and Massachusetts refused to obey. (Ref. 23)
5. These remarks are taken from Wright (Ref. 28), pages 250 and 251)
6. Quotation from Reference 151, page 500
7. The Cherokees particularly had a highly Europeanized culture, with a written language, invented by their great leader Sequoyah, before their western travels. (Ref. 60) See also pages 1201-1202
8. The Hidalgo Treaty described some of the U.S.-Mexico border vaguely, and in 1853 President Franklin Pierce had James Gadsden purchase an extra 30,000 square miles along southern New Mexico and Arizona south of the Gila River, for \$10,000,000. That area was considered the most practical route for a southern railroad to the Pacific. This was the "Gadsden Purchase". (Ref. 63)
9. The Cayuse bred a small horse and gave the name *cayuse* to all Indian ponies. (Ref. 64)
10. Fortunately the Senate, organized as a court under the Chief Justice, failed to convict Johnson and he remained in office
11. This plow had a revolving blade, which turned the very hard soil
12. The French-Canadians named these Indians Nez Perce because they pierced their noses for wearing shell ornaments. (Ref. 91)
13. Quotation from Frank H. Cushing, who lived with the Zuni from 1879 to 1883, as given by Palmer (Ref. 97), page 128
14. The gauchos were a mixture of Spanish Creoles and Indians

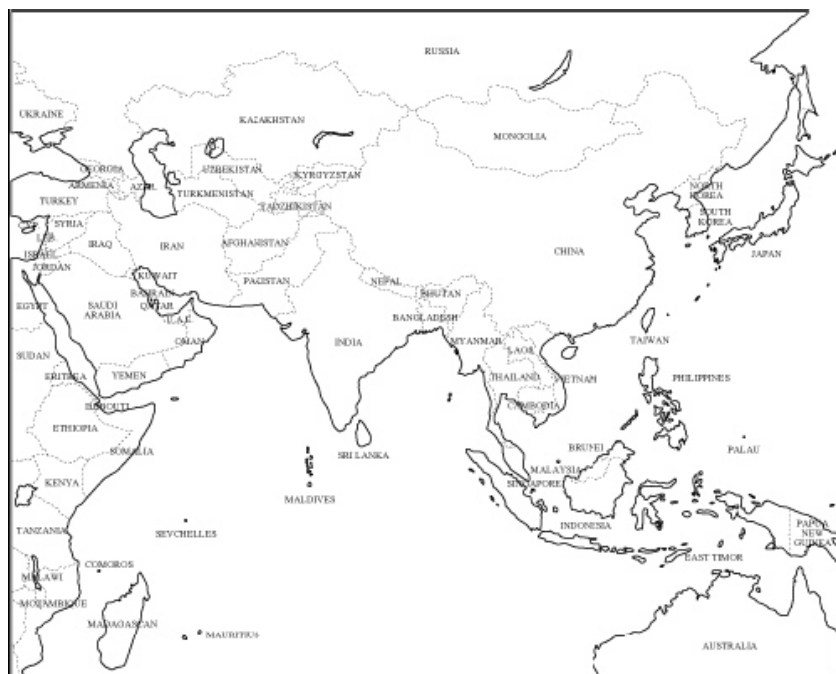
Central and Northern Asia

Geographical Presentation of Central and Northern Asia

The reader will note on the map to follow that this geographical region is of the general magnitude of North America, but much smaller than Africa. The map does not include the very far eastern tip of Soviet Siberia with the Magadan region and the Kamchatka peninsula. That extends roughly 600 miles farther east than the edge of the diagram, but it is of little interest in this manuscript. Although the various sub-divisions of central and northern Asia are not discussed formally, as such, in the text because of constant changing of borders and names throughout the centuries, the various present day component parts will be discussed under their current names.

THE COMPONENT PARTS OF CENTRAL AND NORTHERN ASIA

The area shown in light red on the diagram deserves special mention. This is the Zvarea of Tibet and Sinkiang, both of which are currently a part of the Peoples Republic of China. Historically and genetically, at least until very recent years, however, these A-were central Asian peoples, not "Han" Chinese and so, ignoring the present political border we have elected to include this large area under the heading of Central Asia. Thus there is a heavy dotted line border, rather than a solid line about these regions, as at present they are not actually defined as "countries".



Map 1.1: Central and Northern Asia (This map was obtained from <http://english.freemap.jp/index.html> and is used with permission under a Creative Commons Attribution 3.0 license.)

Central and Northern Asia: Beginning to 8000 B.C.

CENTRAL AND NORTHERN ASIA

It is of interest that some geologists have written that during much of the Triassic and Jurassic periods some 200 million years ago, southern Tibet was largely submerged below the tropical sea of Tethys - water separating the continents of Eurasia and Gondwanaland. During the Cretaceous period 65 million years ago, the Indian subcontinent separated, moved across the Tethys and collided with Eurasia with a terrific impact which formed the Himalayan range and the Tibetan plateau. The collision zone folded the earth's crusts to almost a right angle. Then only a few million years ago further uplift of the Himalayas occurred, incident to glaciation and other factors, and these mountains are still rising at the rate of 1/2 centimeter a year. (Ref. 1, 2)

Skeletal remains have been found of the cave dwelling Neanderthal hunters all about the area from the Caspian to the Aral seas. As the last Ice Age retreated, Siberian reindeer hunters progressively worked northward. Men of truly modern type were pressing into this far north land some 35,000 years ago, where they hunted mammoths within a hundred miles of the Arctic Circle, along the Pechora River. An early wave of men spread from the Ural Mountains across central Asia to southern Siberia and Mongolia and their relics have come to be known as the Mal'ta - Afonova Culture. A second wave penetrated eastern Siberia along the Aldan River and Soviet excavations there have shown these people of the Diuktai Culture to have hunted mammoths, muskoxen, bison and giant woolly rhinoceroses about 35,000 years ago. These people may have been some of the first adventurers across the land bridge into Alaska. Certain Siberian tribes existing

today (Nganasans, Eutsis, Dogan Chukchi, etc.) have a complex time-factored mythology and ceremonials, including lunar calendar notations, bear and reindeer ceremonies, etc. that are related to Upper Paleolithic cultures of 15,000 to 35,000 years ago.

Around Lake Baikal and the upper Yenissei River well preserved artifacts dating to 20,000 years ago have been excavated. These include huts and small art objects, such as carved geese figurines and tiny female statuettes. From the latter it is apparent that these Mongoloid people wore skin suits, parka hoods and moccasins sewed on trousers. The bow and arrow may have been invented in central Asia by 13,000 B.C. About 11,000 B.C. the Asiatic wolf probably was under human control, but only by getting animals under six weeks of age. This was not true dog domestication. (Ref. 3, 4, 5, 6, 7)

Dr. Ales Hrdlicka has found on the southern slopes of the Himalayas among the Tibetan tribes a yellow-brown stock which "in physique, in behavior, in dress, and even in intonations of language"(1) [link] appear identical with American Indians. Could this be their original homeland?

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[182] RIPLEY, S. DILLON, "Tibet: the high & fragile land behind the ranges", Smithsonian Jan. 1981, pp. 97-105.

2

[100] HSU, KENNETH J., "When the Black Sea was Drained," Scientific American, 238: 53-63, May, 1978.

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[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[226] WAECHTER, JOHN, Prehistoric Man. (Octopus Books Limited, London and Mandarin Publishers Limited, Hong Kong, 1977).

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[182] RIPLEY, S. DILLON, "Tibet: the high & fragile land behind the ranges", Smithsonian Jan. 1981, pp. 97-105.

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Central and Northern Asia: 8000 to 5000 B.C.

THE INDIAN SUBCONTINENT

Middle Stone Age sites with their delicate flake-shaped tools occurred mainly in India in the central and peninsular areas, but also in the Soan Valley and at Sanghao in northeast India. Microliths and Mesoliths of the Late Stone Age are distributed almost throughout the subcontinent, except in Pakistan. Interestingly enough, scattered in remote areas throughout there are still today about twenty million aboriginal peoples such as the Gonds, Bondos, Kani, Todas and Magas, of uncertain racial ancestry. A few seem to be related to the Australoids of Australia. Pollen analysis suggests forest clearance and cereal culture in Rajasthan as early as the 8th millennium B.C. (Ref. [1](#), [2](#), [3](#))

[1](#)

[33] CLARK, KENNETH, *Civilization*. (Harper & Row, New York & Evanston, 1969).

[2](#)

[88] HAWKES, JACQUETTA, (Editor), *Atlas of Ancient Archaeology*. (McGraw-Hill Book Co. New York, etc. 1974).

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Central and Northern Asia: 5000 to 3000 B.C.

CENTRAL AND NORTHERN ASIA

An early phase of the Yang-Shao Culture which has been mentioned in connection with China has also been unearthed at Pan-p'o-ts'un in central Asia. It had a slash and burn agriculture, domesticated animals and hand-made pottery. In contrast to our remarks about the invention of the wheel in Sumer, some authorities believe that it was invented in western Asia prior to 3,500 B.C., but the circumstances are unknown. It is possible that the inventors were relatives of the Kurgans of south Russia who did bring wheeled chariots into Europe. (Ref. 175)

1

[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

Central and Northern Asia: 3000 to 1500 B.C.

CENTRAL AND NORTHERN ASIA

Throughout the fifteen hundred years covered in this chapter, the Iranian (Indo-European) tribes slowly expanded in all directions, including various salients across southern Asia both east and north. By 2,500 B.C. the hunting economies had begun to give way to herding and agriculture in Kazakhstan and central Siberia. Horse drawn carts were in use in Turkistan by the same date. The pottery of all these people showed affinities to the Middle East. It was the domestication of the horse which allowed them to spread and penetrate in all directions.

In the far northeast of Asia, the Mongol peoples continued their own development, probably more closely related to the Chinese culture than to the Indo-European development. In the area which now comprises the western Chinese provinces of Kansu and Sinkiang, but which geographically are more a part of central Asia, the Pan-Chan phase of the Yang-shao Culture appeared about 2,500 B.C. with large urns painted in spirals with purple, brown, red and black. By 1,500 B.C. this gave way to the Hsien-tien Culture which included farming and the use of hand-made pottery and copper tools. Farther northwest, in the Yenisei Valley, the Afanasieve Culture with stock breeders and hunters, stamped pottery, and copper ornaments have been dated to this 3rd millennium. By 1,500 B.C. the Androvonovo Culture existed between the Don and the Yenisei rivers, with small settlements of up to ten semi-subterranean houses. These individuals, who were the ancestors of the later nomads of the central Asiatic steppes, grew wheat and millet and bred live-stock at that time. (Ref. [1](#), [2](#), [3](#), [4](#)).

1

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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Central and Northern Asia: 1500 to 1000 B.C.

CENTRAL AND NORTHERN ASIA

Iranian (Indo-European) tribes occupied all of the area of south central Asia from the Aral Sea to the Tarim Basin, and gradually extended their territories on east toward China and southeast into the Indian peninsula. At about 1,000 B.C. Iranians of Transoxia found that a rider could manage his horse on a battlefield, initiating a weapon that ultimately outmoded the chariot. It is assumed that the Mongolian and the Hunnish-Turkish peoples were multiplying in the farther north and northeastern reaches of Asia, but little actual information is available. In the 13th century B.C. in south Siberia, the Karasuk Culture developed from the Androvonova, and there was a change from settled communities to seasonal nomadism. Small curved knives similar to those at An-Yang in China have been found. (Ref. [1](#), [2](#))

[1](#)

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

[2](#)

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

Central and Northern Asia: 1000 to 700 B.C.

CENTRAL AND NORTHERN ASIA

South central Asia was now occupied by various migrating Indo-European tribes, some moving gradually south between the Aral and Caspian seas and others moving west toward the southern Russian steppe. Ordos, the region of Mongolia lying inside the loop of the Yellow River where it turns north, was inhabited by nomadic tribes, including the Hsiung-nu, an Altaic-speaking Mongoloid people.¹ Broad daggers, curved knives, harness ornaments and belt plaques with animal profiles have been among the remnants found. Rock carvings in Tibet along the upper Indus River valley in Ladakh on the Tibetan-Kashmir border dating 2,000 to 3,000 years ago indicate Stone Age hunters with bows and arrows. Due to a gradual continued rise of the Himalayan arc and the resulting lessening of the effective rainfall through the centuries much of this area is now desert. (Ref. [1](#), [2](#), [3](#))

[1](#)

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

[2](#)

[45] DANIEL, GLYN (Consulting Editor), *Encyclopedia of Archeology*. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[182] RIPLEY, S. DILLON, "Tibet: the high & fragile land behind the ranges", *Smithsonian Jan.* 1981, pp. 97-105.

1. Some authorities deny that the Hsiung-nu can be identified as a separate people on the borders of China until the 2nd century B.C. See references 45 and 127 and

this manuscript under 4th century B.C., CENTRAL AND NORTHERN ASIA.

Central and Northern Asia: 700 to 601 B.C.

CENTRAL AND NORTHERN ASIA

The Hsiung-nu of the Mongolian region had horses of various breeds, among them one with an upright mane. They, like the Huns of probable later descent, were expert horsemen. East of Mongolia excavations have revealed the Tagar Culture, dating back to 700 B.C. and continuing for about 600 years. This included a semi-settled people who designed animals on small knives, belt and harness plaques and broad daggers. The latter have also been found in South Russia and on the northern borders of China.

The Iranians of Tranoxiana were a mixed group of tribes. Some, who moved on into southern Russia were known as Scythians while their kinsmen who remained behind became known as Sakas. The Medes had pretty well left this area to settle in Iran south of the Caspian, but behind them came their cousins, the Persians. Zoraster was born along the Oxus River in this century and did much of his teaching in Khurasan. (Ref. [1](#), [2](#), [3](#), [4](#))

[1](#)

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

[2](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[3](#)

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

[4](#)

[127] MAENCHEN-HELFEN, OTTO J., *The World of the Huns*. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

Central and Northern Asia: 600 to 501 B.C.

CENTRAL AND NORTHERN ASIA

There was probably very little change from the situation described in the last century. The Tagar culture people continued in the north, the early Mongoloids in the northeast, and the proliferating Iranian tribes, especially the Sakas and the eastern Medes, in the south.

Central and Northern Asia: 500 to 401 B.C.

CENTRAL AND NORTHERN ASIA

There were people in the Altai Mountains of southern Siberia and an advanced people lived near Minusinsk, some 800 miles northeast of Lake Balkash and some 200 miles north of the northwestern corner of Mongolia in the Ordos region of Siberia. The Rockefeller Collection contains a bronze reindeer mounted on a marble base representing a known Tagar Period of art from that location. As mentioned in previous chapters this same Tagar Culture has been found in more southern areas of Asia, also. The Persian Empire extended well up into central Asia from the Aral Sea to the edge of the Tarim Basin and north of this the unconquered Sakas roamed at will. Just north of the Aral Sea, at Issik near Alma Alta, one thousand gold objects dating to this 5th century B.C. have been excavated, indicating that this had been an important trade route. (Ref. [1](#), [2](#), [3](#))

[1](#)

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

[2](#)

[183] ROCKEFELLER (NELSON) COLLECTION. (The Nelson Rockefeller Collection, Inc., New York, 1978).

[3](#)

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

Central and Northern Asia: 400 to 301 B.C.

CENTRAL AND NORTHERN ASIA

At Pasyryk in the Altai Mountains of southern Siberia eight burials, dated from the 4th to the 2nd centuries B.C., have been excavated. These contained wooden chariots, textiles and furniture as well as men with skin tattoos, all well preserved by the perpetual frost. The Tagar Culture continued throughout much of the rest of Siberia. South central Asia was overrun by Alexander as he went from Afghanistan through the Hindu Kush to Bukhara and Tashkent. At the very end of the century, however, the Mauryan Dynasty of India took over a large part of Afghanistan.

As we shall see in the section on CHINA, below, the non-Chinese people of Mongolia and the adjacent part of Siberia had now about completed their slow transition into full horse nomadism and they began to attack the Chinese perimeter, as well as even taking to the sea toward Japan. Skulls from the Lake Baikal region of northern Mongolia, dated to this era, are low faced skulls of the pre-Hsuing-nu population, and were different from the later high-faced skulls of the true Hsuing-nu. (Ref. [1](#), [2](#), [3](#), [4](#))

[1](#)

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

[2](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[3](#)

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford

University Press, Stanford, California, 1975).

4

[127] MAENCHEN-HELFEN, OTTO J., *The World of the Huns*. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

Central and Northern Asia: 300 to 201 B.C.

CENTRAL AND NORTHERN ASIA

The homeland of the Parthians was on the eastern shore of the Caspian Sea and about 247 B.C. they moved south, taking territory away from the Seleucids, under their leader, Arsaces. Bactria became independent at 250 B.C. as a Greco-Bactrian kingdom under Diodotus, and it became the center of a web of caravan routes linking Siberia and China with India, Persia and the Mediterranean cities. (Ref. 1) Farther north in Siberia, Tagar Culture groups continued as in recent centuries. In Inner Mongolia, the Hsiung-nu was just forming as the first great confederation of Altaic-speaking nomads. (Ref. 2) Afghanistan was ruled by the Maurya Dynasty of India, until this entire area was reclaimed by the Syrian Antiochus III at the end of the century.

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

Central and Northern Asia: 200 to 101 B.C.

CENTRAL AND NORTHERN ASIA

Bactria, astride the Hindu Kush and making up the northern part of present day Afghanistan, was ruled by Greek kings as remnants of Alexander's empire, and the country allowed Indian, Chinese, Iranian and Greek cultures to meet and intertwine. For the next two or three hundred years this was the hub of the east-west Ecumene, even though the Yue-chi destroyed the political unity of the Kingdom of Bactria. (Ref. 1) This take-over was part of a new turmoil which arose in central Asia about 130 B.C. as Huns from far eastern central Asia (perhaps Mongolia) started to push the Yue-chi (Tocharians) westward and they in turn chased a few remaining Scythians beyond the Jaxartes River¹. The Scythians, in turn, headed southward and destroyed the Greco-Bactrian kingdom just mentioned, on their way to the Punjab of India, with the Yue-chi following later in about 100 B.C. via northern Afghanistan.

The Huns just mentioned were chiefly the Hsuing-nu, under Chief Modok, and they soon dominated not only Mongolia but the Indo-European oasis statelets of Chinese Turkestan as well. Armor called "chia" was worn at least by the nobles in the Hsuing-nu army.

The word may mean "hide armor" but in graves at Noin Ula, Mongolia and Tuva, Siberia armor made of iron scales attached to fabric has been found dating to this century. Bronze, iron and leather were probably all used. After the conquest of Tuva, the Hsuing-nu population, which was already racially mixed, became even more Europoid². (Ref. 3)

The Chinese ruler, Wu-Ti, spent the resources and energies of China for eighteen years in great campaigns against the Hsuing-nu and they were finally driven out of Inner Mongolia, Kansu and Chinese

Turkestan. Ferghana, west of the Tarim Basin was the homeland of "heavenly horses" which the Chinese felt they had to have in their cavalry to counteract the agile ponies of the Hsuing-nu and other raiding - nomads. At the end of the century Wu-Ti sent armies to subdue the nomads of Sinkiang and go through this area to get the horses. A Chinese explorer had reached this Ferghana Valley in 128 B.C. and a military garrison had been established by 101 B.C. The western edge of the arid Tarim Basin was the source of jade for the Chinese carvers. Farther west, the Parthians had extended their empire south and east to take in part of Khurasan and the edge of the Hindu Kush. The Bactrian camel, in this and adjacent centuries, served all the barbarians from the Great Wall of China to the Crimea as pack and riding animals. (Ref. 4, 5, 6, 7)

1

[139] MCNEILL, WILLIAM H., The Rise of the West. (The University of Chicago Press, 1963).

2

[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

3

[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

4

[139] MCNEILL, WILLIAM H., The Rise of the West. (The University of Chicago Press, 1963).

5

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

6

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

7

[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

1. This classical view of one people "chasing" or "driving" another ahead of them is not accepted by the scholarly Maenchén-Helfen (Ref. 2) who believes the migrations took place for other reasons

2. "Europoid" is a term used by Soviet anthropologists to indicate "non-Mongoloid"

Central and Northern Asia: 100 B.C. to 0

CENTRAL AND NORTHERN ASIA

In the north China, under Emperor Wu-ti, again took the offensive against the Hsiung-nu and rebuilt the old Ch'in wall, then opened up the route to central Asia, extending control over the oasis states of the Tarim Basin. In 44 B.C. Wu-ti defeated the Hsiung-nu along the border and pushed them west where they fled to the Lake Bakal region already occupied by the Yue-chi. The latter were then pushed west and south to take over Bactria and confront the Parthian Empire of Persia. The last defeat of the Huns (Hsiung-nu) by the Chinese military forces came in 36 B.C. when an expeditionary force completely broke up the Asiatic's power. (Ref. 1, 2)

At the beginning of the century two Greek principalities remained just south of the central Asian Massive and south of them, extending into present day Pakistan were the Iranian Sakas in the east and the related Iranian Suren Kingdom to the west. About the middle of the century the latter invaded the Indus Valley, breaking the power of the Sakas and deposing the last of the Indo-Greek princes. At about the same time the Huns also recovered and began to move south again against the Greater Yue-chi (Kushans), then occupying the entire region between the Oxus and the Jaxartes rivers, and soon extending through their Suren cousins, their control down the Indus in present day Pakistan. In this era Tibet was closer to India, culturally, than to China or other Asian centers. (Ref. 3, 4)

1

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

3

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

4

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

Central and Northern Asia: 0 to A.D. 100

CENTRAL AND NORTHERN ASIA

The Silk Road trade reached its peak in this century, sustaining a string of states extending along the caravan roads from Roman Syria to the northwest border of China. In Bactria, a union of five Yue-chi tribes took the Kabut Valley, driving out the Pahlavas and soon establishing an empire which comprised all of Afghanistan as well as northwestern India. The Kushans were apparently one clan of the Yue-chi which included or was synonymous with the Tocharians, but they were dominant in this expansionist drive and the entire empire soon bore their name only. These Kushans even sent an embassy across the Caspian Sea and into Armenia to meet with the Romans in A.D. 58. The empire was a melting pot, with Indian, Chinese, central Asian and Hellenic-Roman culture and their coins showed a wide range of deities, some Hellenistic (Heliols, Hephaistos), Iranian (Mithra, Nana) and Indian (Siva, Buddha). (Ref. 1, 2, 3)

The Kushans pushed their administration on into India subjugating the Surenians and Sakas. They then reversed their armies and turned northward toward China, but were defeated by the great Chinese General Pan Ch'ao who was on a campaign to control Sinkiang (Tarim Basin) in A.D. 90. Pan Ch'ao then led his army across the Pamir Mountains to reach the Caspian Sea.

In the meantime, the Tibetians had attacked northwest China without much success. In the far north, the northern Hsüing-nu (Huns) were defeated by the southern Hsüing-nu in A.D. 85 and then were further beaten by the Mongol Sien-pi in 87 and by the Chinese General Tou Hsien in 89. It is no wonder that although part of them submitted to overlords, a great part of the survivors

migrated westward, leaving their lands to the Mongols. This westward migration of the Huns was furthered by famine and anthrax among their cattle and horses. Along the steppe adjacent to China they were joined by Iranian herdsmen, Mongols from the forests of Siberia and even Chinese renegades and captive Europoids of various tribes, all of them subsequently called "Huns" as they gradually headed toward Europe. A great part of the Hsuing-nu confederacy, however, consisted of Mongoloids of the Baikal type, but this does not mean that all Mongoloids of this type were Hsuing-nu. (Ref. 4) The fiery, black-browed horsemen of the steppe, normally well nourished on animal protein foods, could easily overcome their more slated, carbohydrate fed Chinese neighbors, except when strong dynasties were in power such as the Han, in control at that time. (Ref. 5)

1

[140] MCNEILL, WILLIAM H., *Plagues and Peoples*. (Anchor Press/Doubleday, Garden City, New York 1977).

2

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

3

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

4

[127] MAENCHEN-HELFEN, OTTO J., *The World of the Huns*. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

5

[222] TRAGER, JAMES, *The Peoples Chronology*. (Holt, Rinehart & Winston, New York, 1979).

Central and Northern Asia: A.D. 101 to 200

CENTRAL AND NORTHERN ASIA

In far eastern and northern Asia Mongolian nomads, perhaps with some admixture of Turkish, Europoid elements, all of which are traditionally considered as ancestors of the Huns, lived as harsh, bow-legged men with large heads and massive chests which apparently helped them to withstand the blazing days and freezing nights of the Gobi desert. Their chief meat was mutton, but occasionally they ate beef, horse or camel and the humps of the latter were considered a great delicacy. In general, in the wilder areas the cattle did not adapt well and camels were not sufficiently productive, having only a single foal every three years. The yak was used for milk, rather than fundamentally for meat. (Ref. 1)

As pack animals the horse and Bactrian camel were the means of opening the great commercial routes across the central Asian steppe, with many change-over points along the way. Stone Tower, somewhere north of the Pamirs, was the great meeting place where exquisite Chinese silks and exotic spices were bartered for Roman glassware, pottery, asbestos cloth, coral beads, gems, grape wine for the emperor of China, silver and gold.

The drain of gold from the West was fantastic in amount. In the desert at the north of the Tarim Basin at present day Turpan (or Turfan) about 950 underground canals called "Karez" were constructed to bring irrigation water from the Tian Shan (Celestial Mountains) to the desert, where a melon and grape growing oasis was thus developed. The Han Chinese ruled Turpan at this time, but through the centuries it was controlled by numerous Central Asian peoples. The "blue-print" for such an underground water system was brought along the silk route from Persia, where the canals were

called "Qanats". (Ref. 2, 3)

As noted in the last chapter, the Tocharians and other Yue-chi tribes had combined to create the vast Kushan Empire which in this century covered almost the entire central Asian land mass in its southern portion. Their greatest king, Kanishka, ruled this empire from India, and more details will be written in that section of this chapter. On the Turkistan frontier with China, Mongol Hsiung-nu, Tibetans and other tribesmen lived side by side with the Chinese, who still ruled at least the most eastern portion of this area, although their protectorate over the Tarim Basin had lapsed in A.D. 106. (Ref. 4)

1

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

2

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

3

[73] GORE, RICK, "Journey to China's Far West", National Geographic 157: 292, March 1980.

4

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

Central and Northern Asia: A.D. 201 to 300

CENTRAL AND NORTHERN ASIA

In the regions of Afghanistan and western Turkestan the Kushan Empire split into several principalities and the Persian Sassanids appear to have rapidly established some dominance over the nearest of these, but their claim to have made the Oxus and the Indus their frontiers seems over-stated. The Kushan states certainly continued to exist as political entities until the 5th century. With the fall of the Han Dynasty in A.D. 220, China lost control of eastern Turkestan, and the Kushans, with some Persian influence, once again gained control. Still farther north the Hunnish tribes were flourishing.

By the opening of this century all parts of the 2,500 mile trade route from Syria to the Tarim Basin were under pressure by barbarians and a great deal of the trade had already shifted to sea lanes in the Indian Ocean. Along the silk route, however, art flourished from this century for the next 700 years as a remarkable combination of stylistic elements drawn from India, Persia and China. Stone was scarce, but decorated wood pieces and tempera painting on wood was common. (Ref. 1, 2, 3)

1

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

3

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited,
6 Bedford Sq., London).

Central and Northern Asia: A.D. 301 to 400

CENTRAL ASIA

In this century the Persians continued to rule and populate both Afghanistan and Turkistan, introducing Zoroastrianism to the area. In 371 the Ephthalites (White Huns¹) invaded the upper Oxus (ancient Bactria) but the Persian Shapur II came to an understanding with them and subsequently these people actually guarded this part of the Persian domain.

It was apparently a sharpening of the climate in this part of the world which forced the nomadic tribes to other pastures toward the end of this 4th century. Rather than go east against strong China, even after the fall of the Han Dynasty, many of the Huns turned west, riding bony, rough haired, small headed horses with short, strong legs, needing little water and covering over 60 miles a day. (See footnote on previous page). As we have seen in the paragraphs above, other peoples were ahead of them, in the greatest mass migrations known, before or since. (Ref. ¹)

Up through this century Tibet was divided into 13 principalities with war continually raging between them. (Ref. ²)

¹

[33] CLARK, KENNETH, Civilization. (Harper & Row, New York & Evanston, 1969).

²

[272] TONG, ENZHENG; LENG, JIAN AND WANGDUI, SUOLANG, "Unraveling Tibetan Prehistory at Karuo", Archaeology Vol. 35, No. 5: 62, Sept./Oct. 1982.

1. See footnote under IRAN, 5th century C.E.

Central and Northern Asia: A.D. 401 to 500

CENTRAL AND NORTHERN ASIA

By this century the Kushans had become completely Persianized and by A.D. 440 they were swept away by the Ephthalites coming down from the Altaic region in repeated raids. After terrorizing the Persians and conquering Afghanistan in A.D. 460 these misnamed "White Huns"¹ left Persia alone and went on to India. The center of power of the Altaic nomads was the country along the Great Wall of China and in Mongolia, north of the Gobi desert and from there they struck both southward and westward. This great nomad power had begun with the Hsiung-nu who, after being defeated by the Chinese Han in the 1st century C.E. had re-established themselves in central Asia and had taken some Iranians and Mongoloid tribes from the forests of Siberia into their fold. (Ref. [1](#), [2](#))

[1](#)

[137] McEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

[2](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

1. See footnote on **Central and Northern Asia: A.D. 301 to 400**

Central and Northern Asia: A.D. 501 to 600

CENTRAL AND NORTHERN ASIA

In eastern Asia the successors of the Hsiung-nu were the Kok Turuk, also called the Blue or Celestial Turks and these were the people who by 550 were driving the Juan-Juan out of Mongolia. (See also CHINA, this chapter). Their successors in Mongolia were the Turks, proper, called T'u-Chu~eh by the Chinese. This Turkish Empire was an exceptional one which could bear on western China and the Europe-Near East areas all at the same time. It now advanced rapidly and crushed the Ephthalites in 553, allowing the Persians to again occupy the lands south of the Oxus. The amalgamated remnants of the Juan-Juan and the Ephthalites were known in the West as the Avars. Previous to this the latter of the two peoples had lived in Bactria and had continuously raided Persia. In this century the Avars had already reached the Balkans and Hungary. Some place in this mass of migrating, nomadic peoples the stirrup was developed and this made it possible for horsemen to ride fast and meet a shock, as with a lance, and still survive. (Ref. 1, 2, 3, 4)

1

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[101] HUCKER, CHARLES O., *China's Imperial Past*. (Stanford University Press, Stanford, California, 1975).

3

[137] MCEVEDY, COLIN, *The Penguin Atlas of Medieval History*. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

Central and Northern Asia: A.D. 601 to 700

CENTRAL AND NORTHERN ASIA

The Great Turkish Confederation controlled most of central Asia and particularly Turkistan, at the beginning of the century. Chinese diplomacy started to break up this Turkish control by 630 and then the Chinese military reconquered the Tarim Basin in 648 and West Turkistan in 656 at the peak of their expansion into Central Asia. The break-up of the Turkish Confederation thus allowed the Moslems to take the Oxus region just after the middle of the century with very little resistance.

The Chinese of the T'ang Dynasty were supported by the Turkic speaking Uigurs (also Uighurs), who were called "Yee-che" by the Chinese. Actually the Turks of Mongolia had made the Chinese T'ang ruler, T'ai-tsung, their Grand Khan in 630. Near the oasis of Dunhuang, just west of the Great Wall of China and now a part of China, and northeast of the Tarim Basin, lie the caves of the Thousand Buddhas, constructed chiefly during the T'ang Dynasty (A.D. 618-906). In subsequent centuries pilgrims from all over central Asia traveled to visit this labyrinth of sculptures and frescoes painted by Buddhist monks.

(Ref. 1, 2, 3)

Tibet was unified early in the century when rival fiefdoms began to be consolidated by King Sontsan Ganbo (or Ganbu), who incidentally married two foreign queens, one from the T'ang Dynasty of China and one a princess of Nepal. An embassy was sent to China in 641. Although the Tibetans became Buddhists, they maintained a war ethos and continued at intervals to fight the Chinese over a period of two centuries. Xenophobic policies prohibiting foreigners, along with the world's highest and most

difficult terrain, was then sufficient to keep Tibet isolated from the rest of the world for hundreds of years. The Tibetans remained independent in essence until the 20th century, even though the Chinese have long claimed sovereignty (even back to this 7th century). Tibetans retained a separate language, culture, borders, money and religion. The holiest shrine still standing in the center of Lhasa is the Jokhang, built around A.D. 650 and serving as the Buddhist "Mecca" to the Tibetan faithful. (Ref. [4](#), [5](#), [6](#))

[1](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[2](#)

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

[3](#)

[73] GORE, RICK, "Journey to China's Far West", National Geographic 157: 292, March 1980.

[4](#)

[272] TONG, ENZHENG; LENG, JIAN AND WANGDUI, SUOLANG, "Unraveling Tibetan Prehistory at Karuo", Archaeology Vol. 35, No. 5: 62, Sept./Oct. 1982.

[5](#)

[228] WARD, FRED, "In Long-Forbidden Tibet", National Geographic 157: 218, Feb. 1980.

[6](#)

[182] RIPLEY, S. DILLON, "Tibet: the high & fragile land behind the ranges", Smithsonian Jan. 1981, pp. 97-105.

Central and Northern Asia: A.D. 701 to 800

CENTRAL AND NORTHERN ASIA

In the northern portions of Central Asia, from the Aral Sea and the Syr Darya Valley east to Manchuria, the rulers were the Blue or Celestial Turks (See page 421). They appear to have driven other Turkish tribes westward, including the Ogur and also their former rulers, the Juan-Juan of Mongolia. In the most northeastern part of Mongolia the Uigurs seized control in 744, establishing a capital on the Orkhon River near the site of later Karakorum. The most far flung eastward group of Indo-European (Europoid) tribes were those who reached Chinese Turkistan and were called Tocharians. Their language was written down in this century. The western region of Central Asia, Kashgar, was overtaken by the advance of Islam and due to the energy of the local emir (governor), considerable advance was made against the Turks. The Arabs controlled all of western Turkistan and Afghanistan and the Moslem religion has persisted there until this day.

The Arabs were helped in driving the Chinese out of west Turkistan by the Karluk Turks, who attacked the Chinese from the rear. This Chinese army was finally completely defeated at the Talas River just south and west of Lake Balkhash in A.D. 751 in one of those decisive battles of history. China was not to be influential in Central Asia for six centuries and Buddhism gave way to Islam. Of some importance, too, is the fact that some of the captured Chinese soldiers brought the art of making paper with them to the West. (Ref. 1, 2, 3, 4)

Padma Sambhava, an Indian guru, brought Buddhism to Tibet, heretofore rife with spirits, demigods and demons. Called to the country by King Trisong Detsan, the guru brought writing to the

country and blended native beliefs with the Hindu and Buddhist cults of Tantrism, so that Tibet was under Indian influence after A.D. 750. (Ref. 5)

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[38] COLUMBIA ENCYCLOPEDIA, 3rd Edition. (Columbia University Press, New York and London, 1963).

3

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

4

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

5

[157] NATIONAL GEOGRAPHIC SOCIETY, "Demons and Lamas in the High Himalayas", Great Religions of the World, National Geographic Society, 1978 Edition.

Central and Northern Asia: A.D. 801 to 900

CENTRAL AND NORTHERN ASIA

Islam and China each dominated large portions of Central Asia at this time. Chinese porcelain has been found, dating to this period, in Tarsus and Cairo, apparently carried from T'ang China through the Tarim Basin and the Pamirs to the mideast trade routes. (Ref. 1, 2) In an area east of a line drawn from the Aral Sea to the south end of the Caspian, then designated as "eastern Persia", the separate Tahirid Dynasty ruled in the early century. Near the end of the era the northern part was ruled by the Samanid Emirate and the southern by the Saffarid Emirate (874) from Persia, proper. By A.D. 900, however, the Samanids had taken over the entire area. At that time Bokhara and Samarkand rivaled Baghdad as centers of art and learning and the Persian language was used throughout. (Ref. 3)¹

1

Its Samanid rulers began to mint vast quantities of large coins, many of which went to Russia, chiefly through the Bulgars on the middle Volga. (Ref. 4)

The Uigurs were chased out of Mongolia in A.D. 840 by the Kirghis Turks and the former moved to Turfan in the desert, which is now part of Sinkiang, China, where they reigned for the next 400 years. Those people eventually converted to Islam and later transmitted their script to the Mongols. (Ref. 5) The Kirghiz Turks moved on down to take part of Turkistan and developed almost a Persian culture as they adopted the Manichean religion. North of western China were the "Western Turks" and the most western group of

these were called "Ghuzz". (Ref. 6, 7)

In southern Siberia in the mountainous border area between Mongolia and Manchuria, just south of Lake Baikal, were forest hunters who claimed descent from the Hsiung-nu, but who were more apt to have been related to the Juan-Juan tribes that were in Mongolia in the 5th century. At any rate, these are the Mongols that later were to be the warriors of Genghis Khan and at the end of this 9th century they started to migrate into the Siberian plain around the Onon River. Some remained hunters and fishermen while others became pastoral nomads. The latter became the true Mongols, proper. (Ref. 8)

1

[58] EDWARDS, MIKE, "Tunisia: Sea, Sand, Success", National Geographic 157: 184, Feb. 1980.

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

3

[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

4

[301] SAWYER P.H., Kings & Vikings A.D, 700-1100. (Methuen, London & New York, 1982).

5

[38] COLUMBIA ENCYCLOPEDIA, 3rd Edition. (Columbia University Press, New York and London, 1963).

6

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

Central and Northern Asia: A.D. 901 to 1000

CENTRAL AND NORTHERN ASIA

Just northwest of the western end of the Great Wall of China, the Tanguts (a Tibetan tribe) founded the powerful kingdom of Hsi-hsia in the areas of Ninghsia and Kansu. The Khitan Mongols, under their dynastic founder, Ye-lu A-pao-Chi (907-926) conquered all Inner Mongolia and, as we shall see later in the chapter, most of Manchuria and northern China. (Ref. [1](#), [2](#)) To the southwest the Khwarism (Khorezm) Turks took their name from their ancient and medieval state centered on the basin of the lower Amu Darya River and in 995 the country was united under the emirs of north Khwarism whose capital, Urgench, became a major seat of Arabic learning. (Ref. [3](#), [4](#), [5](#))

Afghanistan fell to the Turks of Turkistan in A.D. 962. The Samanid Emirate, extending east from Persia, was partially crushed and Transoxiana lost to the Karakhanid Turks in 990 but it remained for another Turk, General Mahmud, one of the greatest figures in Central Asian history, to completely overthrow the Samanids in 999, initiating the Ghaznawid Emirate in that entire area of southern, central Asia. Bokhara and Samarkand continued to be great centers of learning and art while the great Friday Mosque at Herat was already attracting scholars and philosophers from all over the Islamic world. (Ref. [6](#), [7](#))

In Tibet the two wives of one of the kings converted him to Buddhism and after that Chinese writings were brought into the nation. One such writing, the "Tanjur" contained medical information. (Ref. [8](#))

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[119] LANGER, WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952).

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[279] MCNEILL, WILLIAM H., The Pursuit of Power. (University of Chicago Press, 1982).

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[38] COLUMBIA ENCYCLOPEDIA, 3rd Edition. (Columbia University Press, New York and London, 1963).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D., Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York 1978).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

7

[144] MICHAUD, ROLAND AND SABRINA, "Afghanistan: A Record of a Timeless Culture now threatened with change", Smithsonian, Nov. 1980, page 48.

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[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D., Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York 1978).

Central and Northern Asia: A.D. 1001 to 1100

CENTRAL AND NORTHERN ASIA

Early in the century Mahmud the Turk, ruler of Afghanistan, moved out of his base at Ghazni to conquer most of Persia and the Punjab of India, along with most of central Asia, establishing the greatest empire of this period. Ghazni equaled Baghdad as a cultural center of Islam. Khwaja Abdallah Ansari (1006-1088), who was to become the patron saint of Herat in eastern Afghanistan, lived among the mullahs and doctors of law, preaching his religious philosophy in the center of this Moslem area. (Ref. 1) Mahmud's empire was short-lived, however, as the Seljuq Turks descended from Transoxiana to take Asiatic Islam piece by piece. The great Seljuq sultan, Malik-Shah, had as his general a still more famous Suleiman. Just north of the Seljuqs were the Karkhanis Turks and still north of them were the Ghuzz, parent body of the off-shoot Seljuqs. (Ref. 2, 3, 4)

Still farther north the Uigurs were active on the northwest China border. Little is known about the great expanse of Siberia specifically at this time, but certainly one must assume that it was sparsely inhabited with northern Mongoloid hunters.

Tibet, although previously influenced by Nepal and Kashmir of India, now began to show a character of its own, particularly in its art work, which demonstrated special talent in inlays of gold and silver. It was already a country full of missionaries, monks and monasteries. (Ref. 5, 6)

[144] MICHAUD, ROLAND AND SABRINA, "Afghanistan: A Record of a Timeless Culture now threatened with change", Smithsonian, Nov. 1980, page 48.

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[144] MICHAUD, ROLAND AND SABRINA, "Afghanistan: A Record of a Timeless Culture now threatened with change", Smithsonian, Nov. 1980, page 48.

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

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[157] NATIONAL GEOGRAPHIC SOCIETY, "Demons and Lamas in the High Himalayas", Great Religions of the World, National Geographic Society, 1978 Edition.

Central and Northern Asia: A.D. 1101 to 1200

CENTRAL AND NORTHERN ASIA

In Khwarizm an enormous army had been built up by Khutbeddin Muhammad, a Turkish mercenary who had governed the area on behalf of the Seljuq Turks and then finally declared his independence. The basic population of this area was still Persian and no match for the fierce Turks and their Kipchak and Cuman bodyguards. In 1141 Transoxiana fell to the Karakhitai, Buddhist Mongolians whose khanate stretched over all of Turkistan. In Afghanistan the Turk Mahmud's empire fell to hordes of semi-barbarians from the mountainous region of central Afghan called Chor. Under Ala ad-Din Jahansoz, a powerful new Moslem dynasty was then established. (Ref. [1](#), [2](#))

When the Liao Dynasty was overthrown by the invading Jurchen in the northern area of China (See CHINA, this chapter), the Liaon Yeg-lu Ta-shih fled west and found protection among the Uigurs, finally establishing a Western Liao state in far inner Asia, subjecting the local Moslem Turkic people, who called the new state "Kara Khitae", meaning "Black Ch'i-tan". (Ref. [3](#))

Tibetan art work reached a high cultural level with still more beautiful gold and silver inlay productions. (Ref. [4](#))

[1](#)

[27] CHAMBERS, JAMES, *The Devil's Horsemen*. (Atheneum, N.Y., 1979).

[2](#)

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

4

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

Central and Northern Asia: A.D. 1201 to 1300

CENTRAL AND NORTHERN ASIA (See map this same section, next chapter)

At the turn of the century Ali-ad-Din came to the throne of Khwarizm as Muhammad II and he soon added southern Khurasan and its peaceful Persians to his empire. To the east was the Transoxiana Empire and to the northeast of that the powerful Buddhist Empire of Kara Khitai, screening Islam from the new power developing in Mongolia around Karakorum. It was in 1206 that Temujin, leader of the Yakka tribe of Mongolians of the Gobi desert, in council with other tribal leaders of the region, took the title of Genghis¹ Khan (meaning "Lord of the Earth") and started to lead his soldiers south. (Ref. 1) As the Mongols conquered Kara Khitai, Ali-ad-Din took Transoxiana with its great wealth and its 500,000 people. (Ref. 2)¹

¹
(Ref. 3)

It was the normal procedure of the Mongols to send emissaries ahead, bearing lavish gifts and suggesting trade, with new regions. Thus, before attacking Khwarizm in 1220, Mongolian merchants arrived with 500 camels laden with gold, silver, silk and sables. But Ali-ad-Din murdered the ambassador and the merchants and confiscated the gifts. When still another ambassador arrived at Samarkand to protest, the Shah, himself, burned the beards and hair of the escorts and sent the ambassador's head back to Karakorum. Then with 400,000 Turks and Persian auxiliaries, as well as

thousands more armed slaves, Muhammad Shah sat back and awaited the arrival of the supposedly small, inferior Mongol army.

But the fate of Khwarizm had been sealed and the first attack occurred at the city of the original emissary massacre where Genghis Khan's two sons, Ogedei and Chagati, destroyed the city and killed everyone but the guilty governor, who was taken back to the Great Khan's headquarters where molten metal was poured into his eyes and ears until he died. A second Mongol force, led by Jebe Noyon² went south with 20,000 men into Khurasan below the Amu Darya, to draw off any major force there, while Jochi (also Juchi), another son of the Great Khan, rode west destroying major fortifications. Genghis, himself, with Subedei Bahadur of the Reindeer people turned north and then came in from the flank at the Aral Sea while Jochi came up from the south in a flanking maneuver. After some very rough battles, the Khwarizmian army was annihilated and Genghis appeared at the gates of Bakhara, 400 miles behind the main battle lines. Samarkand fell shortly thereafter and only the Shah escaped, fleeing westward to the Caspian Sea. Jebe, Subedei and Toguchar followed him at the rate of 80 miles a day, accepting the surrender of various cities on the way. The Shah mercifully died of pneumonia before they caught him, so the Mongol task force then spent the winter on the edge of Azerbaijan. The city of Tabriz saved itself by the payment of an enormous amount of silver and thousands of horses. Subedei was summoned home and he covered the 1,200 miles back to Karakorum in seven days. It was on that occasion that the Great Khan instructed Subedei to take Jebe and make a reconnaissance through the western steppes of Asia and Russia during the next two years. (Ref. 4) At about this same time, other Mongol armies were completing the annexation of the Kara Khitae Khanate in Manchuria and were starting to conquer China. (Ref. 5)

This seems a good time to stop a moment and examine in a little more detail the method of living, the skill of fighting and traveling and other characteristics of these Mongol people. Their activities represent the last and most violent assault of nomadic barbarism on civilization. Ethnically their invasions resulted in the wide dispersal of Turkic peoples over western Asia, as from the beginning the Mongols augmented their sparse armies from Turkish tribes, sometimes the latter outnumbering the former and the Mongol language survived only in the homeland. Their original religion was

an ancestral shamanism, embodied in the *Yasa* or Law of Genghis Khan, but early they tolerated Christians, Buddhists and Moslems. (Ref. 6) The Mongol army was composed of *turnens*, consisting each of 10,000 men and divided into 10 *minghans* of 1,000 men with each *minghan* further divided into 10 *jaguns* of 100 men each and finally down to *arbans* of 10 soldiers each. The commanders of both the *minghans* and *tumens* were called *Noyans* and were appointed by the khan, while the *jaguns* and *arbans* elected their own leaders. An army, commanded by an *Orlok*, consisted of 3 or more **tumens** of cavalry, several *minghans* of artillery and engineers. The more experienced soldiers of ten slashed their cheeks to make thick scars, thereby stopping beard growth and consequently eliminating the need for shaving. Each cavalryman carried two bows, at least 60 arrows, a lasso and a dagger. In addition the light cavalymen carried a small sword and 2 or 3 javelins, while the heavy cavalymen carried a scimitar, a battle-axe or a mace and a 12 foot lance. In their saddlebags were a change of clothing, cooking pot, field rations (yoghurt, millet, dried meat and *kumiz*), leather water bottles, fishing line, files for sharpening arrows, needle and thread and other tools. The composite bow had a pull of between 100 and 160 pounds and a range of over 350 yards. It was made from layers of horn and sinew and the string was pulled back by a stone ring worn on the right thumb for quick release. The horses were thickset, strong with short legs, but 13 to 14 hands high - at least a hand higher than the average Mongolian domestic horse of today. A few of these horses may have been even 16 hands high. All, from birth, were trained to follow each other. Mares were preferred as one could get milk as well as blood and as a last resort flesh, if necessary. (Ref. 7, 8)

According to Marco Polo³, the Mongols skimmed off cream (for butter), then dried the skim milk in the sun until dry. They would take this with them and each morning take a pound out and put it in a leather flask with water so that while they rode the milk would dissolve and they would soon have reconstituted milk for breakfast. For a rapid 10 day journey, each man had a string of 18 horses and would take no provisions, living on the blood of the horses - piercing veins and drinking about 5/8 pint every 10th day from each animal. In this way the rider could be sustained without impairing the mounts. On such a forced trip the soldier would use no fire, in part because of the danger of being seen and in part

because there was probably no fuel. In general, the nomad diet was high in protein, fat and vitamins A and B but low in vitamin C (except in Scythian territory).

They got their vitamin C from mare's milk, which is 4 times as high in this as cow's milk. (Ref. 9) The Mongol fighting tactics were far ahead of their time. In World War II, both Rommel and Patton were students and admirers of Subedei, perhaps the greatest tactician of the Mongol generals. (Ref. 10)

We have discussed the original reconnaissance of the Russian steppe in the preceding paragraphs in the section on RUSSIA and we shall not repeat that here, but we need to pick up the narrative as the Mongols were retreating back to Asia. It has been noted that the Mongol armies had received 10,000 reinforcements under Genghis Khan's son, Jochi, as they defeated the Kama Bulgars on the upper Volga. They then rode on east to the lands of the eastern Cuman Kanglis, who had supplied so many soldiers to Muhammed II back in 1220 in the original Khwarizm war. Only when they had been annihilated and the Kangli khan killed were they ready to rejoin the Great Khan on the Irtysh River. En- route Jebe died of a fever.

By this time Genghis was camped in a fertile valley, holding court on a golden throne in a huge, white pavilion that was capable of holding 2,000 people. Jochi gave his father a gift of over 100,000 horses that he had taken in tribute from the Kanglis. In two years, these Mongols had already ridden over 5,500 miles, and their real campaign of conquest into Europe had not even begun.

The career of that great instigator, Genghis Khan (1207-1227) is the most dramatic example in all history of the potentialities of nomad warfare. Superior generalship, mobility of cavalry and what today would be called "staff work", gave the Mongols superiority over every enemy they encountered. Genghis, although unbelievably cruel to his enemies and traitors, was in every other way a surprisingly enlightened and liberal ruler. His codified laws, eventually governing 50 nations, were far less cruel than the laws of Islam. Karakorum was a city where churches, mosques and temples stood side by side. This capital had been visited by William of Rubruck some forty years before Marco Polo's time, as an emissary of Louis IX of France. William described a giant silver fountain which had been constructed by Guillaume Houcher, a French goldsmith, which contained four spouts which dispensed

respectively kumiss (fermented mare's milk⁴), wine, mead and rice wine. Genghis had nearly five hundred wives and concubines and a preoccupation with wine. On his death the homeland was bequeathed to his youngest son, Tolui, while the former empire of Muhammad II (Kh warizm) was given to Chagatai, all the eastern empire (China) to Ogedai and the western steppes to the sons of Jochi - Orda and Batu. At that time the Mongol armies were undefeated and the entire steppe from the Volga to the Amur had been welded into a single, vast, military confederacy. (Ref. [11](#), [12](#), [13](#))

The death of Genghis did not by any means signal the end of the Mongol supremacy. The title of Great Khan descended upon Ogedai and Karakorum was extended so that 500 wagon loads of food were brought in every day. These wagons, which brought in more than 500,000 bushels of grain each year from China, took 4 months to make the round trip but such deliveries supplemented the meat and milk products locally available. (Ref. [15](#)) Ogedai had gold fountains in the shape of elephants, tigers and horses and kumiz continually poured from the mouths of each. But like his father, he too was fond of wine and gradually the control of the empire fell more and more into the hands of the chancellor, the Chinese Yeh-Lu Ch'u-Ts'ai⁵, a Cathayan philosopher, astronomer and physician. It was in Ogedai's reign that the great Mongol armies made their definitive attack on Russia and Europe, proper, and it was Ogedai 's death which necessitated the withdrawal of those forces from Europe, because much political maneuvering had to be done before a new Great Khan could be selected. A camp was established a few miles from the capital where some 4,000 ambassadors and the retinues of all the Mongol lords and princes gathered. Finally Kuyuk, son of Toregene, was elected Great Khan. He had Nestorian clerks and eventually told the visiting friars - John of Italy and Stephen of Bohemia - that he preferred the Christian religion. However, the letter he sent back to the pope by these friars stated just the opposite, to the effect that unless he too (i.e. the pope) came to Karakorum to pay homage, he would be considered an enemy. These friars had returned as far as Kiev by June, 1247, some ten years before Marco Polo was born. Although Batu, of the Golden Horde in Russia had sent an ambassador to Karakoram for the khan election, he was murdered because Kuyuk did not trust him. A new army was sent out, not west, but south to complete the conquest of

Sung China, a project which had been started in Genghis' time. (Ref. 16)

Mangku, son of Tolui (also Tuli), succeeded as supreme khan in 1251 after the alcoholic death of Kuyuk at age 42. By that time the great Mongol Empire, stretching from the Pacific to Europe, had been pretty well divided into four rather distinct components. Western and southern Russia was the Khanate of the Golden Horde, while about the Aral Sea was the Khanate of the White Horde and to their north was the Cheibanid Khanate. The 4th region was China, itself. To connect the whole empire, however, the Mongols had a communication system they called *Yam*, similar to the old American pony express. There were Yam stations 25 miles apart, guarded by detachments of soldiers, stretching clear across the empire and messengers rode at the rate of 120 miles a day. (Ref. 18) An interesting result of the vast communication network as well as the slower commercial caravans and armies that marched to and fro across those vast Euro-Asian distances on a northern route, which was much different than the old Silk Road, is that this was the apparent method of spread of a new disease to the West - bubonic plague. Mongol horsemen had penetrated Yunnan and Burma in 1252 and 1253 where plague was endemic and they apparently brought the organism back to the steppe where the wild rodents came in touch with carriers of this new disease and in later centuries that became the real source of the *Pasteurella pestis*, which was to repeatedly scourge Europe. (Ref. 19)

After the death of the Great Khan Mangku in 1259, succession for the first time was decided by armed conflict. For 4 years Kublai and Arik-Boke fought for the throne, and in the last part of that period Berke, then ruler of the Golden Horde also fought with Hulegu of Rum and Persia. Berke had convinced his troops that Hulegu had murdered the commanders of two Golden Horde tumens that had been with Hulegu's original forces and that the current attack was traditional revenge. Berke's forces crossed the Caucasus, led by Nogai. In the eastern conflict Kublai won but was immediately so completely absorbed in further fighting with the Sung Chinese and the Far East that he could not give much attention to the west. There was therefore a break-up in Asia and eastern Russia into several khanates, as we have detailed above. In addition to those previously listed we now add a separate Il-Khan Empire in Persia, proper. (Ref. 20) Kublai and his successors still apparently looked

after the old capital at Karakorum, as over 500,000 bushels of grain continued to be brought there from China each year. Tibet remained a part of the empire of the Great Khan, although retaining its own king. It was in this century that the Tibetan king also became the lama and ruins of his vast 13th century fortress can still be seen with its cascading wall down a hillside at Shekar Dzong. The Tibetan lamas had great prestige and privilege under the Mongol rulers and their artisans reached a high point in independent precious metal work. (Ref. [21](#), [22](#), [23](#))

A diagram showing the genealogy of the Mongol khans will be given on the next page in an attempt to clarify the rather complicated relationships.

NOTE: Insert: Genealogy of the Conquering Mongol Khans

[1](#)

[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

[2](#)

[27] CHAMBERS, JAMES, The Devil's Horsemen. (Atheneum, N.Y., 1979).

[3](#)

[292] BRAUDEL, FERNAND, Civilization & Capitalism - Volume II, The Wheels of Commerce. (English translation by Sian Reynolds), (Harper & Row, Publ., New York, 1982).

[4](#)

[27] CHAMBERS, JAMES, The Devil's Horsemen. (Atheneum, N.Y., 1979).

[5](#)

[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

[6](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[7](#)

[27] CHAMBERS, JAMES, The Devil's Horsemen. (Atheneum, N.Y., 1979).

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[279] MCNEILL, WILLIAM H., The Pursuit of Power. (University of Chicago Press, 1982).

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

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[139] MCNEILL, WILLIAM H., The Rise of the West. (The University of Chicago Press, 1963).

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[182] RIPLEY, S. DILLON, "Tibet: the high & fragile land behind the ranges", Smithsonian Jan. 1981, pp. 97-105.

[131] MASSIE, ROBERT K., Peter the Great. (Alfred A. Knopf, New York, 1980).

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited,

6 Bedford Sq., London).

1. As noted in the introductory material, the spelling of this name varies with the source - Jenghis, Ginghis, Genghis, Ghingis etc.)
2. Jebe had originally been an enemy of the Great Khan but now was a loyal supporter
3. See map of Marco Polo's journeys on page 753
4. This was called "cow's milk whiskey" by later Victorians. (Ref. 14)
5. Lamb (Ref. 17) spelled this name "Ye Liu Chutsai"

Central and Northern Asia: A.D. 1301 to 1400

CENTRAL AND NORTHERN ASIA

The old Kipchak area (Turkistan to South Russia) and most of Siberia fell in this century to the last tornado of nomadism – Timurlane¹. This man, descended in the female line from Genghis Khan, but otherwise chiefly Turkish in origin, was born south of Samarkand in 1336 and developed into a nomad of the old savage school, creating an empire of desolation and piles of skulls. As a young man he was made governor of a large area under the Mongol conqueror, Tughlak Timor Khan and then drove the invaders out of Transoxiana (now Uzbekistan) by the time he was 33 years old. For four decades he rampaged through Asia. With one of the greatest armies ever seen on the- Siberian steppe, he campaigned against Toktamish of the Golden Horde and soon ruled a vast land south of Moscow. His warriors wore armor of link mail, carried two bows - one for rapid shooting and one for long distance, as well as 30 arrows, a small shield and a scimitar. Each man had two horses. Timur spoke both Turkic and Persian and surrounded himself with scholars, historians and poets. He resurrected Samarkand, bringing scientists and philosophers and building schools and libraries, wide avenues and glittering palaces and mosques. At its height his empire extended from Turkey to Moscow to Mongolia to Delhi. As the century ended he was temporarily in control of all of Iraq, Persia and central Asia - the area known as the Timurid Emirate. (Ref. 1)

In the meantime, the Chinese Ming armies had gained complete control of Inner Mongolia by 1370 and then they pushed the Mongols out of Manchuria and Outer Mongolia beyond Karakorum, almost to Lake Baikal and northwest to Hami, in modern Sinkiang

province, opening the gateway to central Asia. In western Asia (and eastern Russia) the Mongols were not driven out but became assimilated into the numerically superior Turkish-speaking warrior population. Subordination to the Great Khan in Peking ceased to have even ritual significance.

NOTE: Insert Map 42. Asia c1300 and The Empires of Genghis Khan and Tamerlane

It has been mentioned several times in this outline that the Mongol horsemen brought plague-infected rodents or at least carried the disease organism from India into the Eurasian steppe. In this 14th century the bacillus became endemic among burrowing rodents in the steppe and the nomad populations became exposed to a lethal infection of a kind never known before. Radical depopulation and even abandonment of some excellent pasture land was the result. (Ref. 2)

Tibet remained quite isolated, but Chinese influence began to be evident in their paintings, side by side with Indian characteristics. It was in this century that Tibet evolved the theocracy which persisted into the 20th century, centering the religious and administrative power in one person, whose succession was assured by the people's belief in reincarnation. The name "Dalai Lama" was not used, however, until the 16th century. (Ref. 3, 4, 5)

1

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

2

[279] MCNEILL, WILLIAM H., The Pursuit of Power. (University of Chicago Press, 1982).

3

[12] BERGAMINI, DAVID, Japan's Imperial Conspiracy" (Wm. Morrow & Co., Inc., N.Y., 1971).

4

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

5

[228] WARD, FRED, "In Long-Forbidden Tibet", National Geographic 157: 218, Feb. 1980.

1. Also known as Timur-i-lend (the Persian for "Timur the Lane), Tamerlane or simply as Timur

Central and Northern Asia: A.D. 1401 to 1500

CENTRAL AND NORTHERN ASIA

Transoxiana and Samarkand were each ruled by descendants of Timur and they became rival centers of prosperity and culture equal to any in Europe. Toynbee (Ref. 1), writing in the middle 1940s, described that culture along with that of Turkey as the "Turkish-Iranian Islamic Society", still existing. One cannot help but wonder, in the light of activities in the 1970s and 80s, if he still would describe these diverse areas as a single culture. Timur had lived just into this 15th century and was determined to conquer China and had moved north from Samarkand, with a horde of 800,000. Camping at Otrar, some 250 miles north of Samarkand in January of 1401, Timur became ill and died. It was his son Shah Rukh, whom we have seen took over Persia and a grandson Ulugh Beg, who kept the center land from India to Iraq, for awhile. Ulugh Beg set up a great observatory and constructed very accurate astronomical tables.

The battle which Timur had had with the remnants of the Golden Horde marked the final age of the Mongol conquests, but they were already in decline. The appearance of plague in humans across the steppe as a result of the establishment of the new reservoir for *Pasteurella pestis* in the area probably was a real factor in undermining Mongol military might, as their manpower dwindled. There was a decay of urban centers on the steppe, irrespective of external factors, such as Timur's destructive frays. Caravan personnel were particularly vulnerable to plague and from this time on new migrations from the steppe failed to materialize. The opening of the new sea route to the east around Africa was still another severe blow to the region and a final factor was the

isolationist policies of the Ming Dynasty in China, which tended to dry up the silk route. The Ming even cut off grain supplies to Mongolia, as a means of pressuring the steppe people, but the Mongol response was to go to war and when the Ming retaliated by trying to invade Mongolia, the Chinese emperor was captured, in 1449. (Ref. 2) Thereafter the Ming reverted to a completely defensive strategy, withdrawing from Inner Mongolia, so that even the pretense of Chinese military domination of Central Asia was dropped. (Ref. 3, 4)

The Cheibanid Khanate, which had existed north of the Aral Sea for some time, collapsed in 1471 and the great Timurid Emirate finally had to split into the northern Timurid Emirate of Samarkand and the Southern Emirate of Herat. (Ref. 5)

In Tibet it was at this time that the theory of the reincarnation of the lamas was developed. The people were taught that when a lama dies his soul passes to a new-born boy and so an extensive search goes on each time, to find the new Dalai Lama. (Ref. 6)

1

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

2

[279] MCNEILL, WILLIAM H., The Pursuit of Power. (University of Chicago Press, 1982).

3

[149] MOLINA MONTEZ, Augusto F., "The Building of Tenochtitlan", National Geographic 158: Dec. 1980.

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[157] NATIONAL GEOGRAPHIC SOCIETY, "Demons and Lamas in the High Himalayas", Great Religions of the World, National Geographic Society, 1978 Edition.

Central and Northern Asia: A.D. 1501 to 1600

CENTRAL AND NORTHERN ASIA

About 1505 the southern, central area of Samarkand, Bukhara and Tashkent (including the area also known as Khorezm) was invaded from the northwest by Muslim Uzbeks, formerly called "Sarts" and representing a remnant of the Golden Horde. Khorezm then became known as the Khanate of Khiva, after its capital. Kazan and Astrakhan were taken from Islam by Ivan IV, the Terrible, in mid-century, chiefly with the use of artillery. (Ref. [1](#)) Later an Uzbek leader, Abdullah, extended his rule over parts of Persia, Afghanistan and even Chinese Turkistan, for a short period. The little empire then broke up into separate khanates and emirates. (Ref. [2](#), [3](#))

Farther north a revived Mongol power under Altan Khan (1550-73) was giving the Chinese considerable pressure. In the west, the first advance into Siberia by the Cossack chieftan, Yermak, heralded the Russian eastward migration. Yermak was backed by a rich merchant family, the Poyarskis, although the only profitable occupation in Siberia at that time was fur-trapping. That great land area was occupied sparsely by a great number of Turko-Mongolian tribes, including the Chukchi, Koryaks and Kamchadali of the far northeast; Lamuts, Yakuts, Tungusy and Ostyaks north of China; and Samoyeds, more Ostyaks and Tartars just east of the Ural Mountains. (Ref. [4](#), [5](#)) In the arctic north of western Siberia around the mouth of the Yenisey River reindeer herders lived chiefly off those animals. They rode and milked the partially tamed ones and ate the wild ones. (Ref. [6](#))

In Tibet, the name "Dalai Lama" was given to the Tibetan theocrat by a 16th century Mongol ruler and the term has come to mean "Ocean of Wisdom". (Ref. [7](#))

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Central and Northern Asia: A.D. 1601 to 1700

CENTRAL ASIA

This great source of the dynamic, nomad hordes, which had periodically flooded both the East and the West, began to decline in energy. In the far north beyond the Arctic Circle the Evenk reindeer herders lived, particularly in the region at the mouth of the Yenissei. They rode their animals, sitting far forward on their-shoulders, not on their weak backs. As early as 1614 they paid heavy taxes of furs to the czars. Farther east, but still within the Arctic Circle, lived the Yakuts, relative newcomers to the region, apparently having migrated from a southern steppe. They lived in log houses and used iron, which disseminated from them to the Evenks, although the two people often clashed. (Ref. 1) South of these people in Siberia, fur was the thing tempting Russians deeper and deeper into the area and they reached the Pacific coast in 1649. Only the western portion of Mongolia (now called "Outer Mongolia") remained independent, while the southern and eastern part was eventually taken over by China. While the Manchu Ch'ing dynasty was busy suppressing southern rebels, eastern Mongols known as Tatars and Khalkas stormed northern China in 1675. Although at first thrown back by the Manchu emperor, next a western Mongol chief, Galdan, invaded Mongolia from Central Asia. The emperor's forces launched three campaigns against him, forcing Galdan to commit suicide in 1697, and allowing Chinese military colonies at Central Asian oases of Hami and Turfan. (Ref. 2) The Mongols and adjacent Calmuchs were converted to the Lamaistic form of Mahayan Buddhism.

Toynbee (Ref. 3) says that this represents an astonishing triumph of a fossilized relic of religious life of the long extinct primary Indic

civilization, although the connection here escapes me. The old Uzbek areas northeast of the Caspian were now called the land of the Kalmuks and Kazakhs. In the old area of Khwarizm, Transoxiana, Ferghana and Chinese Turkistan there were now independent Turkish, military khanates. (Ref. 4)

In Tibet, the Potala - home, office, castle and fortress of the Dalai Lama – stands atop a mountain, rising 700 feet above the town of Lhasa. Although this was started under construction in the 7th century, most of it was built between 1645 and 1694 when, as indicated in the paragraph above, the Lamaistic form of Buddhism seemed to have a revival. The Potala is said to have more than 1,000 rooms, 10,000 altars and 200,000 statues. (Ref. 5) Late in the century the Chinese Manchus installed an anti-Mongol Dalai Lama as the ruler of Tibet. (Ref. 6)

1

[288] "PEOPLES OF THE ARCTIC", Cartographic Division, National Geographic, Feb. 1983.

2

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[192] SCHWARTZ, GEORGE AND BISHOP, PHILIP W., Ibid. Volume II - The Development of Modern Science.

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[228] WARD, FRED, "In Long-Forbidden Tibet", National Geographic 157: 218, Feb. 1980.

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

Central and Northern Asia: A.D. 1701 to 1800

CENTRAL AND NORTHERN ASIA

The so-called western Mongols (Eleuthes, Kalmuks or Dzungars) gave China a good deal of trouble early in the century, but finally in 1,735 the Mongols ceded the eastern end of Turkistan to the Ch'ing and then in 1,759 gave all of Chinese Turkistan, the area called Sinkiang (New Dominion) province. This then, resulted in China ruling all of outer Mongolia west to Lake Balkhash and then south to the Tarim basin and eastern Turkistan.

Farther south, just east of the Caspian Sea, a thousand miles of desert was fought over by two Moslem khans, one of Khiva and one of Bokhara. One of Peter I's Russian armies confronted the former and ended up being treacherously slain. There was continuous warfare also in the Afghanistan area. The Afghans started a campaign against the Persians at Kandahar in 1,711, with Mir Vais, a Sunnite Ghilzai chieftain leading them. By 1,722 Mahmud, another Afghan, had defeated a central Persian army and made himself shah of that land. Somewhat later, however, Nadir Kuli, a powerful chief of the Afshar tribe of Khorosan, defeated the Afghans (and later also the Turks, with Russian help) and then went on to invade India. After Nadir's death in 1,747 a general of his, Ahmed Shah, continued to rule Afghanistan, although by the end of the century he had lost all of Nadir's Indian territory. Ahmed Shah called his Afghan dynasty the Durani and the people still of ten use that name for themselves. It was in this century that an Indo-European speaking people, the Pathans, came up from Pakistan, elbowing out the inhabitants from the southern and southeastern parts of Afghanistan, forcing them off the best lands and thereafter living a half-Afghan half-Indian existence. (Ref. 1)

Siberia was being opened up by the Russians at about the same time that America was by the west Europeans. Wild animals (foxes, hares, beavers, bears, wolves) and innumerable birds (ducks, cranes, swans, pelicans, geese, bitterns, woodcocks and grouse) occupied the various waterways and swamps. Hunters and merchants were attracted even to the almost empty Kamchatka peninsula by fur bearing animals. The skins were taken to Irkutsk and thence either to China or to Moscow and the West. Taxes were collected in the form of precious and marketable furs for the czar. Sea otter fur became in world-wide demand and ships, built and outfitted at Okhotsk, used large crews to fight off hostile native Siberians² as they worked their way even to the Aleutians, catching otters at the mouths of rivers. Expeditions were supplied for 4 year trips. When Kamchatka was cleared of its beautiful animals, the hunters went on to the American coast, even to the San Francisco area. (Ref. ³)

Early in the century (1717) Tibet had been invaded by the Mongols, but the Chinese emperor sent in armies to drive them out and Tibet became a political appendage of China by 1720. (Ref. ⁵) A definitive protectorate was established in 1750. At the end of the century expeditions were sent from southern Tibet into Nepal. (Ref. ^{6, 7})

¹

[144] MICHAUD, ROLAND AND SABRINA, "Afghanistan: A Record of a Timeless Culture now threatened with change", Smithsonian, Nov. 1980, page 48.

²

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

³

[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981.

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[288] "PEOPLES OF THE ARCTIC", Cartographic Division, National Geographic, Feb. 1983.

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

7

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

1. Trager (Ref. 2) says this is the Barkzai Dynasty.
2. These were the Chukchi, who repeatedly defeated the Cossacks and were the last Siberian natives to submit to Russian rule. They were reindeer and sea hunters, who had adapted remarkably well to the severe Arctic climate. (Ref. 4)

Central and Northern Asia: A.D. 1801 to 1900

CENTRAL ASIA

We mentioned above something about the continual increase in Russian migration to Siberia in this century. Gold resources there were only worked after 1820. Going from west to east, the chief Arctic peoples of Siberia were Evenks, Yakuts, Yukaghir, Chuvan and Chukchi, the last reaching right to the Bering Strait. The population of that northern Asian region grew from about 500,000 in 1720 to 1,400,000 in 1811 and then increased again markedly by the end of the century.

Perhaps the center of greatest interest in Asia, however, was Afghanistan. The Pathans continued to sweep clear across the country, acting like feudal barons, becoming the dominant ethnic group and occupying virtually every post in government and administration, although they also became landowners, shopkeepers and peasants. The ruling Durani line ended in 1826 when Dost Mohammed of the Barakzais Dynasty gained power. Trouble almost immediately developed as the British attempted to use Afghanistan as a buffer between Russia and British holdings in India. This resulted in a series of wars in which Indian soldiers fought under their British officers against the Afghans.

In the First Afghan War of 1838 to 1842 the British took Kabul, along with other major cities, but the natives reorganized and soon massacred the British-Indian troops so that only 20 British survivors returned to India. But the British came back again in the

Second Afghan War of 1878-79, with the eventual ousting of the current Afghan, pro-Russian ruler and the establishment of Abdu-R-Rahuman Khan as a pro-British emir. With the western financial backing he did much to establish order in that rather unruly

country, and he lived until just after the turn of the century, ruling under British supervision. (Ref. [1](#), [2](#), [3](#), [4](#))

To the north of Afghanistan, East Turkistan had been dominated by China until 1865 when Russian troops invaded the Khanate of Kokand and took Tashkent. On the east shore of the Caspian Sea, Khiva was an independent khanate until it too was taken over by Russia in 1873. Kokand, north-east of Khiva, held off the Russians only until 1876. The territories of the Kazakhs and Kirghiz had been consumed by Russia as early as 1854¹ (Ref. [5](#))

Most of the people of Tibet were serfs, attached to an estate by birth, although a few were tenant farmers with 95% of the land owned by 3 groups: Nobles, consisting of less than 200 families; monasteries, with 120,000 monks and 13,000 nuns; and the government, consisting of 333 lamas and 280 lay nobles. In outlying areas there was a nomadic culture. There was no shifting from one class to another, except that almost any boy could enter a monastery. Thus 3/4 of the Tibetan males labored to support the monastic 1/4. Since the monks were celibate, greatly reducing the number of potential male parents, polygamy was accepted among those who could afford it. Among the less wealthy, brothers shared a wife as a method of keeping the family intact. (Ref. [6](#))

[1](#)

[260] BRAUDEL, FERNAND, *Civilization ~ Capitalism - Volume I, The Structures of Everyday Life*. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

[2](#)

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

[3](#)

[144] MICHAUD, ROLAND AND SABRINA, "Afghanistan: A Record of a Timeless Culture now threatened with change", *Smithsonian*, Nov. 1980, page 48.

[4](#)

[175] READERS DIGEST, *The Last Two Million Years*. (Readers Digest Assoc., Inc., London New York, etc. 1973).

[5](#)

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

[6](#)

[228] WARD, FRED, "In Long-Forbidden Tibet", *National Geographic*

157: 218, Feb. 1980.

1. Even Manchuria and Korea came under Russian influence until after war with Japan early in the next century

Europe

Geographical Presentation of Europe

The semi-diagrammatic map of Europe below demonstrates that if one eliminates Russia, the land mass involved is scarcely larger than the NEAR EAST. We should also note that the bulk of Europe lies at a latitude north of both the Black and the Caspian Seas and that only a small portion of Siberia lies farther north than European Russia. As indicated on the plate, these two portions of the Soviet Union have traditionally been separated by the Ural Mountain region. It is easy to see how early mariners from Norway and the British Isles could sail directly west to Iceland and then on to Greenland and America. Europe will be discussed in the text under several subdivisions which, in later centuries, will be further divided. These sections will be noted below.

SOUTHERN EUROPE

This division will be discussed with four sub-sections. First will be the eastern Mediterranean islands which modern authorities are considering as the site of the first truly European societies (in contrast to being a part of the Near East), These include the Cyclades, Crete, Rhodes, Cyprus and even Malta. The second area will be Greece and the third the upper Balkans which includes present day Yugoslavia, Bulgaria, Romani and Albania. Historically other countries have occupied this region, such as Macedonia, Serbia, Thrace, etc. Lastly the division will have Italy, with some comments about Sicily, Sardinia and Corsica from time to time.

CENTRAL EUROPE

Arbitrarily this will include five sub-sections - Germany, Austria,

Hungary, Czechoslovakia and Switzerland. Although Hungary and Czechoslovakia are now usually considered a part of eastern Europe because of present ideologies, we have put them in Central Europe because of their long political associations with Austria and Germany.

WESTERN EUROPE

These are the nations along the Atlantic coast, thus Spain, Portugal, France, the Netherlands and Belgium and finally the British Isles. The latter will be further broken down at times into England, Scotland, Ireland and Wales.

SCANDINAVIA

In addition to the expected sub-sections of Norway, Sweden and Denmark, this division will include Finland. Although originally genetically different from the true Scandinavian countries, Finland was a part of Sweden for some 600 years and still has Swedish as one of its two official languages. On occasions there will also be comments about Iceland.

EASTERN EUROPE

This will include the southern Baltic countries such as Poland, Old Prussia, Lithuania, Latvia and Estonia as well as European Russia.



Map 1.1: Europe (This map was obtained from <http://english.freemap.jp/index.html> and is used with permission under a Creative Commons Attribution 3.0 license.)

Europe: Beginning to 8000 B.C.

EUROPE

We have mentioned earlier that one of the oldest skeletons of *homo erectus* is one from Swanscombe, England, found with simple tools made of flint pebbles and associated with elephants' vertebrae. Continental examples of a somewhat similar man have been found at Heidelberg and recently not far from Budapest. At the early state of the final glaciation (Wurm glacier), perhaps 50,000 to 60,000 years ago, there were wedge-shaped stones, axes and spears made in central Europe. This was the time of Neanderthal man, who apparently has no direct descendants today and who represented an evolutionary development of primitive man which for some unknown reason came to a dead end and disappeared. He used pointed scrapers, triangular knife blades, ceremonial burials and heated shelters as well as bone needles. Europe seemed to be the home of these men, although some have been identified in other areas. The archaeologists call their culture the "Mousterian" after Mousteir, France, the location of the original finds. Theirs was a reindeer-dependent culture, in which men used "kits" of some sixty-three different tools. They were basically cave dwellers, particularly in Spain and France. At this time there was a land bridge from England to France and the glacier covered the northern half of the British Isles and all Scandinavia, northern continental Europe and parts of Russia. The Black Sea, as mentioned earlier, was small and a fresh water lake that at some time was connected to the great sea extending through the Caspian to the Aral. H.G. Wells (Ref. [1](#)) thought that this great sea might have been connected to the Arctic, but modern thought makes it a northern arm of Tethys. (Ref. [2](#), [3](#))

In the Lower Paleolithic Age back as far as 100,000 years ago there were flake tools of the Clactonian Culture and later the

Acheulian Culture in Britain. There was some occupation in the Upper Paleolithic in perhaps about 12,000 B.C. and this *homo sapiens* culture which followed the Neanderthal Mousterian, showed an increased tool "kit" with ninety-three types of chipped stone tools, besides a large group of bone tools. Between 30,000 and 10,000 B.C. most of central and western Europe was probably uninhabitable because of cold and ice, except in the summer, but the waters of the Atlantic and its more southern latitude gave southwestern France respite from the cold and thus was a favorite place for the Paleolithic hunter. Early man here was a killer of game and part-time cannibal. In the "fish gorge" of the Dordogne region of France there appeared, about 25,000 B.C., short, baited toggles with tines attached,- the first fish hooks.

About 15,000 years ago huge herds of ruminant animals roamed the plains of central and Western Europe and they were most useful to early man as sources of meat, clothes, tent fabrics and frames and even as fuel (animal fat). The mammoth was hunted particularly in southern Russia and Czechoslovakia. Early man was already divided into subcultures in the Upper Paleolithic level with a Perigordian (Chatelperronian) level appearing as the earliest in western Europe about 35,000 B.C.; a Gravettian in Czechoslovakia about 27,000 B.C. (extending into southern Russia); and the Aurignacian culture of the Cro-Magnon man at 32,000 B.C. in Europe proper. The latter may, however, have originated in the Near East. Strangely marked bones and stones found all over in these periods and extending up to the Mesolithic period of the post-ice age have recently been interpreted as notational, probably related to tabulation of the lunar periodicity, and indicating skill and intelligence and sophistication, as we have previously mentioned.

It was after Neanderthal man, which is after 35,000 years ago, that clothing and ornamentation can be identified. The best example of the use of beads sewn on clothing comes from Russia, where a skeleton was accompanied by shells about the head, chest and on the legs, suggesting trousers. On the steppes, where wood was in short supply, many huts were made from the tusks and bones of mammoth, which also formed the major meat supply in Eastern Europe 25,000 years ago.

Two categories of European art are recognized, a mobile or home art (decorated tools, small carvings, etc.) and then the fixed works of caves and rock paintings, engravings and sculptures. The earliest

art dates to the upper Paleolithic, between ten and thirty thousand years ago. The most developed art was in the so-called Magdalenian era, with the famous cave paintings of Spain and France, of which more than a hundred have been found, perhaps representing a period of over 20,000 years. The pigments used appear to be red and yellow ochre, manganese or carbon for black and china clay for white. Some of the color may have been mixed with fat and the paint was applied by finger, chewed sticks or fur for brushes. The high quality of this art, of essentially the same degree of excellence as that of today¹ is further evidence that man of that day had the same brain and intellectual potential as today.

A short glacial period between 9,000 and 8,000 B.C. reached its peak in less than a century and disappeared rapidly, but for several hundred years the forests of England, West Germany and the Low Countries had a climate with tundras, howling winds and drifting snow. By about 8,000 B.C. fishing nets from twisted fibers or thongs had been invented. Turnips, onions and large radishes date back to prehistoric times. Ireland was probably uninhabited until about 8,000 B.C. The earliest inhabitants of southern Scandinavia entered between 12,000 and 8,000 B.C. following after the retreating ice, and forming primitive hunting communities. (Ref. [5](#), [6](#), [7](#), [8](#), [9](#), [10](#), [11](#))

[1](#)

[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

[2](#)

[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

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[100] HSU, KENNETH J., "When the Black Sea was Drained," Scientific American, 238: 53-63, May, 1978.

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[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

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[130] MARSHACK, ALEXANDER, The Roots of Civilization. (McGraw-Hill Book Co., 1972).

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[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

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[88] HAWKES, JACQUETTA, (Editor), Atlas of Ancient Archaeology. (McGraw-Hill Book Co. New York, etc. 1974).

1. This is Arnold Toynbee's opinion. (Ref. 4)

Europe: 8000 to 5000 B.C.

SOUTHERN EUROPE

Crete and the Aegean Islands were sites of agricultural settlements spreading over from Asia Minor between 7,000 and 6,000 B.C. (A little different view is suggested in the next chapter). A mysterious people whose place names and therefore language was not Greek, spread over the eastern Mediterranean perhaps as early as 6,000 B.C. Linguist Leonard Palmer believes there is a definite Middle Eastern flavor to the words left behind, and traces them to the Luvians, a people from the hills of Turkey. "Corinth", "Olympus" and "Knossos" are among those names that are not Greek. The oldest houses below Knossos on Crete, in a neolithic layer dated at 6,000 B.C., were made of mud bricks hardened in fire, a mid-eastern technique never seen later on the island. The first settlers of Crete, whoever they were, found a heavily forested land with vast stands of cypress, oak, chestnut and pine, unlike modern, denuded Crete. Cyprus had a Neolithic population by the 4th millennium B.C. (Ref. [1](#), [2](#), [3](#), [4](#))

The central mountains of Greece are a series of limestone ridges running southeast into the Aegean Sea where peaks form a series of islands. The cultivable valleys on the coast are more accessible from the sea than from each other or the rest of Europe. Therefore the east coast of Greece participated in the agricultural settlement of the Aegean via the sea from the east. Domesticated sheep were in Greece by 7,200 B.C. The Balkans had agricultural settlements and painted and impressed-ware cultures from 6,000 to 5,000 B.C. spreading up from Greece. The economy was based on sheep, wheat and legumes. Karanovo, Bulgaria, is an example, with mound settlement debris forty feet high. Similar culture spread all along the coasts of the Adriatic, Sicily and southern France. Excavations

in the Maritsa Valley (Valley of the Roses) in central Bulgaria indicate plastered mud-houses over wood framework present by 6,000 B.C. Each generation of people, however, would demolish their old house and build a new one on the site, so that after several thousand years, some of the resulting mounds rose as high as fifty feet. These people at 6,000 B.C. had ovens to bake bread, graphite decorated pottery and by 5,000 B.C. had early smelting and casting of copper, perhaps entirely independently of similar developments in the Near East. Lepenski Vir, on the right bank of the Danube in present day Yugoslavia, was an ancient city site dating before 5,000 B.C. It is characteristic of the work of hunters and fishermen of a pure Old Stone Age tradition before houses took on a permanent form.

Genetic studies of European peoples have indicated that farming advanced from the Middle East into Europe, starting at about 7,000 B.C. with a radial rate of advance of about one kilometer a year, and this advance occurred by diffusion of the farmers themselves (demic diffusion) rather than by the simple spread of technology from one population to another (cultural diffusion). This is evidenced by the fanning out of certain alleles in gene frequencies, spreading in Europe from southeast to northwest and also from the Near East to North Africa, Arabia and East Africa - and from Southwest Asia to the Indus Valley.

Archeological evidence is also plentiful on the European continent, but not so in the other areas. Sardinia and northern Algeria are more nearly similar to the Near East than the rest of the Central Mediterranean, and Sardinia has very low Rh negative frequency and other frequencies that are most unusual. The archeology there shows first that the earliest occupation was Neolithic - with no Paleolithic antecedent and secondly that there was substantial colonization by both Phoenicians and Carthaginians. The first farmers, however, probably came from southern Italy. The island Melos, in the Aegean, has a distinctive variety of obsidian, and there is evidence that Greek and Cretan sailors exploited it and brought it to their own countries as early as 6,000 B.C. (Ref. [5](#), [6](#), [7](#), [8](#), [9](#), [10](#), [11](#))¹

(Ref. [12](#))

CENTRAL EUROPE

The majority of middle Europeans passed into the Mesolithic Age in this period. There were no longer large animals to hunt, perhaps only deer, and man augmented his diet with nuts and berries. The dog was present in the human encampments and boats were used. Farming, which appeared in the Danube basin about 6,000 B.C. spread to the North European plain about 5,000 B.C. They used wooden saws fitted with chipped flint teeth. Neolithic pottery called "Bandkeramik", which was characterized by incised parallel lines above the neck, appeared in areas of south and north central Europe and accompanied the gene gradient which we described above. Such farmer migrations involved more people and have a better potential for increase in population than "barbarian" invasions which have only limited numbers and not enough people to effect gene frequencies strikingly. This farming and the associated pottery spread rapidly along the main river valleys, especially the Danube and the Rhine, at the end of this period about 5,000 B.C. Although much controversy still exists, there is much evidence to suggest that the Indo-European speaking people were actually a single group or people at this time, living in the Danube Valley. We shall examine some other ideas about this later. (Ref. [13](#), [14](#), [15](#))

Swiss lake dwellers with domesticated dogs and plow oxen collected or grew flax for use in making fish lines and nets and general utility ropes by about 6,000 B.C. They also made a bread from crushed grain and had true pottery. (Continue on page 50)

WESTERN EUROPE

Central France and most of Spain had Mesolithic cultures while southern Spain had coastal agricultural settlements that were extensions of Adriatic and southern France cultures. The very southern part of England was not covered by the last glacier, and recent discoveries and dating techniques suggest a very early inhabitation of that area. Dogs were domesticated by tribes in the British Isles by 7,300 B.C. Churchill (Ref. [16](#)) says that at 7,000 B.C.

there was still no English channel and Britain was a promontory of Europe. There was land in what is today the North Sea, also, and men lived there at 6,000 B.C. when there was continuous tundra from Jutland across to England. These men of the north were reindeer hunters, coming up from central Europe. As the glaciers retreated the animals depending on snow water had to have salt. Where human beings accumulated, the reindeers would accept human urine as a source of salt and so semi-domestication became possible, although these animals never became subject to true domestication. Britain may have become separate from the continent by about 5,900 B.C. In Ireland wattle huts date back as far as 7,000 B.C. along the coastal routes and inland waterways. Most of the Irish, particularly in the north and west have blood type O, pointing to a strong pre-Celtic physical inheritance which is believed to have come via the Atlantic from the Mediterranean area. Hunter-gathers of Western Europe and probably the British Isles have close to 100% Rh negative genes, with later positive genes arriving from the east and southeast of Europe. (Ref. [17](#), [18](#), [19](#), [20](#)) (Continue on page 51)

SCANDINAVIA

Even at 8,000 B.C. the last glacier had retreated sufficiently to leave all of Denmark and southern Sweden free of ice and there were men living there, eating oysters, fish and seal meat. Denmark and all islands guarding the approaches to the Baltic were settled by Lapps and Finns. These people were probably of European origin although both spoke a related Finno-Ugric tongue, originating in the Urals far to the east. Denmark was then one continuous stretch of land, not multiple islands and peninsulas as today, and there was one large water channel across Sweden via the great lakes to the Kattegat. The Baltic Sea and the Sound may not have existed as such. A Neolithic rather than a Mesolithic culture existed in this portion of the world. (Continue on page 53)

EASTERN EUROPE

There were good supplies of flint in eastern Poland, and the miles of rivers, lakes and timber afforded resources for early man. The great

water system including the Black and Caspian Seas along with the Ural Mountains acted as a barrier between the Asiatic peoples and the Indo-Europeans. Some would locate the origin of the Indo-European speaking peoples at this time just north of the Black Sea, and certainly there were sparsely scattered people throughout all of northern European Russia up to the edge of the retreating glacier. McEvedy (Ref. 21) calls all of these northern Stone Age people "Finns", but most would probably prefer the term "Arctic peoples" or "Lapps". Certain scholars include the forefathers of present day Lapps among the Paleo-arctic groups, while others maintain that they are Alpine and came from central Europe and were pushed north. They do not all belong to a single physical type and do not belong to a single blood group. Their Finno-Ugric language is close to Finnish but the two are not mutually intelligible and there are three mutually unintelligible Lappish dialects. Today practically all Lapps are bilingual. (Ref. 22, 23, 24) (Continue on page 53)

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Europe: 5000 to 3000 B.C.

EUROPE

It was warmer in Europe after about 5,000 B.C. than at any time before or since. (Ref. 1) The origin of the original Indo-European language speakers remains an unsolved mystery, with some claiming these people started on the Baltic shores, others in the Balkan portion of the Danube and still others in the steppes of southern Russia and on north of the Caspian Sea. The date of origin also remains undecided with some believing it dates back to between 6,000 and 5,000 B.C. and others, particularly some linguists, to a much later date. We shall begin our discussion of these ideas in the next chapter.

SOUTHERN EUROPE

A race of dark whites, perhaps akin to the Iberians of Spain and the Georgians of the Caucasus, developed an island civilization as early as 4,000 B.C. centered on Crete, but apparently with colonies on Cyprus, Greece, Asia Minor, Sicily and southern Italy as important parts of the whole. Their language is uncertain and their early writing has not yet been deciphered, but they had early trade and contacts with Egypt and may very well have even preceded the classical known civilizations of Egypt and Mesopotamia. Reed boats and reed boat illustrations on pottery have been found throughout the Mediterranean from Mesopotamia, Egypt, the coast of Syria, Lebanon, Cyprus, Crete, Corfu, Malta, Italy, Sardinia, Libya, Algeria and out through the Straits of Gibraltar. As mentioned in a previous chapter, recent carbon dating corrections indicate the possible presence of advance civilizations on some of these islands prior to the more classical ones on the continents. The old Roman belief that

Lixus, on the Atlantic coast was the oldest city in the world, supports the possible hypothesis that civilization moved eastward toward Egypt and not the reverse.

An interesting side-light is the recent newspaper report from Russia, detailing the findings of ancient, buried human buildings and walls of a city far below the ocean surface about one-half way between Portugal and the Madeira islands. Again the question of the "Lost continent of Atlantis" is mentioned, but it is perhaps of some moment that the area described and allegedly photographed under water is almost directly out to sea from Lixus. We do know now that the spiral decorations of buildings on Malta date before 3,000 B.C. and that copper was mined on Cyprus probably as early as 4,000 to 3,000 B.C. (Ref . [2,3,4,5](#))

Just before the close of the period under review, a civilization called the "Cycladic" existed all along the shores of the Mediterranean Sea and seems to have been the highest culture of the times. Inland at about the same time the ancient Helladic or Mycenaean civilization began to develop on the northern plains of Greece. Professor Ivan Benedikov, Bulgarian archaeologist (Ref. [6](#)), says that there is evidence of an ancient Thracian, Indo-European culture in the area of Bulgaria and that they produced gold ornaments, figurines and pottery. This is reinforced by the beliefs of Professor Colin Renfrew (Ref. [7](#)) who feels that the fantastic gold ornaments, some weighing thirteen pounds, found at Verna, Bulgaria on the Black Sea, represent the oldest gold-working known, antedating anything of this type in the Near East. Copper tools were made in Romania, Hungary and Bulgaria as early as 4,500 B.C. This dating has been confirmed by the British Museum. (Ref. [8](#))

Now some very interesting theoretical propositions must be discussed with relation to the population of ancient Greece. Were the indigenous people known to inhabit the peninsula after 6,000 B.C. the same who later became known as the Mycenaeans, or were the latter invading conquerors who overcame the originals? If the former is true, then, since the Mycenaeans spoke an early Greek language, there must have been Indo-European speakers in the area by 6,000 B.C. But some linguists say this cannot be. Another alternative is the idea championed by Professor Marija Gimbutas, that Kurgans from the lower Volga steppes migrated by land and sea (Vikings of the 4th millennium B.C.)¹ to all the Balkans and the

Greek peninsula about 2,300 B.C. and became the Achaeans². (Ref. 9, 10, 11, 12)

CENTRAL EUROPE

The Danubian I Neolithic Culture which spread from the Near East, now reached well up into Germany, and this is usually described as an Indo-European culture. Village-based agriculture was present in Hungary by 5,000 B.C. In Switzerland the lake dwellers, with houses on stilts, built either in the lakes or on adjacent marshy ground as early as 5,000 B.C. The extreme north of central Europe, however, was still subarctic, with only hunting tribes following the herds. New peoples introduced mixed farming in central Europe about 4,400 B.C. These Neolithic peoples lived in villages consisting of six to thirteen wooden longhouses averaging about 325 feet long, and they used the so-called Linear pottery. They grew wheat by a slash and burn method and kept cattle, sheep and pigs. This is the culture which spread into northern France and Belgium.

WESTERN EUROPE

Impressed-ware pottery people lived all along the coast of the western Mediterranean by 6,000 B.C. The island of Mallorca in the Balearics, about 125 miles from the eastern coast of Spain, was definitely inhabited by man in the 5th millennium B.C., co-existing with ruminant artiodactyl mammals. There were Bowl Culture agricultural settlements in France, northern Spain and England in the 4th millennium and these people were probably distinct from the Windmill Hill groups which we shall identify later, and of the old Iberian or Western Mediterranean race, which may have spread by boat up the Atlantic coast. Small boats were definitely in use for coastal transport by 5,000 B.C. In Belgium a flint mine of about 4,300 B.C. has been discovered which required the miners to go through about thirty feet of unstable gravel and sand to reach the flint. The tunnels were shored inside and at the bottom the mine fanned out into a web of galleries. The farmers of Belgium and northern France of this era came from Germany between 4,000 and 3,000 B.C. and built large farm houses and used Linear pottery of the tradition of central Europe. In contrast, the people of France, using Chassey pottery after 3,500 B.C. developed a separate

Neolithic farming group.

The earliest flint mine of Britain was in Sussex and has been dated to about 4,300 B.C. The area of the Salisbury plain in southwestern England was inhabited by the Windmill Hill people by about 4,000 B.C., coming from the continent. They were a farming people with cattle, goats, pigs, sheep, dogs and wheat, who added fish and shell fish to their diet. They built at least seventeen known enclosures (and probably actually many more) in this area of England with the largest of these on top of Windmill Hill about one and one-half miles northwest of Avebury, and thus the origin of their archeological name. This particular causeway enclosure was built about 3,250 B.C. and originally consisted of three concentric circles, the largest being 1,200 feet in diameter, covering twenty-one acres. Some 1,300 pottery vessels have been recovered from this spot, and it is thought to have been more or less continuously used for over one thousand years. This, and the other similar constructions were probably used for ritual or ceremonial centers rather than for habitation. When these Windmill Hill people arrived in England, about 4,000 B.C., it was the end of the Mesolithic Age in Britain, and there were certainly other people already there living as semi-nomads, making flint and stone tools for cutting and shaping timber, red-deer antlers and skins. Most of southern England was heavily forested, but Wessex, with chalk and limestone, had lighter vegetation and was attractive to the immigrating stock breeders and agriculturalists. Some feel that cattle may have been shipped to England from the continent as early as 5,000 B.C.

The circular enclosures were not the only mysterious constructions of the Salisbury plains in those early times. The 4th millennium B.C. was the period of the "long barrows" of which there are some 260 in Britain with 148 of them in the Wiltshire country area. The best known of these is the West Kennet Long Barrow, located some one-half mile south of Avebury. Constructed at about 3,600 B.C. it is three hundred forty feet long and seventy-five feet wide at its widest eastern end and eight feet high. It was originally surrounded by a curb of stones. The eastern one-eighth of the barrow is a stone tomb with five carefully made chambers in which forty-five skeletons have been found. At the entrance are many upright stones, lined up at right angles to the axis of the mound. No function has been yet identified for the western seven-eighths of the

barrow.

The first Neolithic Age sites of Ireland are found in County Tyrone, dating from about 3,700 B.C. onwards. The Sandhills Ware Pottery people there exploited the salmon from the Boyne River and by 3,250 lived in rectangular, timber houses. The forests were cleared and cereals, oxen, sheep, goats and pigs were raised, perhaps after the addition of the immigrants related to the Windmill Hill people mentioned above.

Next we must discuss the mysterious and problematical megaliths which have been found all over the Mediterranean islands, along the coasts of the Iberian peninsula, France, Britain and southern Scandinavia. Traditionally it has been taught that the 2,500 B.C. period was the one of this megalithic culture, but recent correction of carbon dating by bristle-cone pine correlation has put the Atlantic megaliths back another 800 years to before 3,000 B.C. One theory is that this culture was based on a religion spread by priests and merchants (perhaps from Malta?), but as we shall see when we discuss some of these remaining monuments in the next chapter, their function, at least in some, appears to have been far greater than any simple ritual. It has been estimated that there are at least 50,000 of these megaliths in Western Europe and countless numbers of others must have been destroyed through the ages. Recently there has been speculation that the original megalith builders may have spread from Britain southward, rather than the reverse.

These immigrants also settled in Ireland and western mainland coastal areas, but avoided the Midlands. In this period of global optimal climate, there were prehistoric farms in Scotland and Northern England in latitude elevations where today no agriculture is feasible. At about 3,000 B.C. this Eden terminated with a sharp return of colder weather (Ref. [13](#), [14](#), [15](#), [16](#), [17](#), [18](#), [19](#), [20](#), [21](#))

SCANDINAVIA

At 5,900 B.C. there were stupendous geological changes still occurring in the north. Men had lived in the area now covered by the North Sea but as the glaciers melted and receded, the earth's crust, previously dented by the weight of the ice, began to rise and it is still rising throughout most of Sweden today. South of this, the waters poured into the North Sea and over much of Denmark, so

that the main part of this land remained attached to Europe only by a thin stalk at Holstein and the Danish tribes became isolated and remained virtually so for some centuries. The Danes knew how to sail and canoe and had flint tools and weapons. All southern Scandinavia and the Baltic settlements of this era had the Funnel Rim pottery. Rock scribings of petroglyphs hewn into or occasionally painted on rock faces representing animals have been found all over the Scandinavian peninsula, as well as in Finland and Russia, dating back to at least 5,000 B.C. Most of these are life-size and are outline drawings in naturalistic style, although another type with stylized animals has been found at Vengen and Ausevik, Norway and Namforsen in Sweden. Just after 4,000 B.C. (some say earlier) contact with Europe proper increased with the result that new people growing barley and wheat and raising herds of cattle, sheep and pigs migrated into the Scandinavian area. (Were these the same as the Windmill Hill people in England?). Like other areas in Western Europe, this was also the era of megalithic tombs, of which some thousands still stand in southern Scandinavia. Due to the very warm climate which developed after 5,000 B.C., vines grew in southern Norway and the whole of Scandinavia had mixed and deciduous forests. (Ref. [22](#), [23](#))

EASTERN EUROPE

There is archeological evidence of human habitation on the southern plains of Russia dating far back into prehistoric times, and nomadic peoples roamed the country throughout the centuries of this chapter. Of particular interest are the Kurgans, known to live on the lower Volga even in 5,000 B.C. (See also SOUTHERN EUROPE, this chapter). They had horses, loved to fight and buried their dead under tumuli. They may later have migrated to Greece to become the Mycenaeans. Marija Gimbutas of U.C.L.A. thinks these people are the original Indo-Europeans and that about 4,000 B.C. they expanded into the Danube basin and down into the Balkan peninsula from there. Most archeologists would deny that they are the original Indo-Europeans but do agree that at sometime, probably 3,500 to 3,000 B.C., these people did over-run much of Europe, using wheeled carts and bronze weapons.

Wild grapes were brought under cultivation in the Caucasus in the 4th millennium B.C. The Finns (or Lapps?) were endemic in

northern Russia and occupied all northern climes outside the area of Neolithic Culture. The Linear Pottery Culture spread from Hungary around the northern edge of the Carpathians into Russia in the mid-5th millennium and agriculture spread through the Volga-Don region from the Danube by about 4,500 B.C. Central, east Europe was in the late copper age after 3,500 B.C., as the Carpathians supplied plenty of copper and later gold and tin. (Ref. [24](#), [25](#), [26](#), [27](#), [28](#), [29](#))

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1. Ref. 215, page 268

2. "Achaeans" is often used interchangeably with "Mycenaeans"

Europe: 3000 to 1500 B.C.

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

The British Museum has displays indicating the original civilization in the Aegean and eastern Mediterranean should be called the "Cycladian", existing from 3,000 to 2,000 B.C. and to be considered separate from the Cretan or Minoan Civilization which followed¹. Although, as noted in the last chapter, people with an advanced Neolithic Culture lived on Crete from 6,000 B.C. onward, the Bronze Age started only about 2,600 B.C.

There are some who believe that the Egyptian and Anatolian influences stimulated the development, but most now feel that this was a purely local progress over a thousand year period. For the first 600 years or so of this Bronze Age, civilization was rather low key, and it appears that there may have been folks of several different origins on the island. Homer was probably truthful when he described three peoples - the Eteocretans, the Kydonians and the Pelasgians. The first of these may be considered the initial truly Cretan people, perhaps of Luvian origin and speaking the as yet undeciphered Linear A language. The Bulgarian linguist, Vladimir Georgiev, claiming decipherment of the Phaistos Disc found on Crete in 1910, believes that that represented a Luvian language which was dominant on the island around 1,700 B.C. and that the Eteocretans and Pelasgians had similar languages. The Kydonians lived in western Crete, language unknown, but they were definitely not Greek in origin. The Pelasgians were an Aegean people who originally may have inhabited all of the Aegean, Thrace and the Greek mainland. Their language was mid-way between Thracian and Hittite-Luvian. Obviously Minoan was a multi-lingual civilization.

The first palaces and cities of Crete appeared about 2,000 B.C., including Knossos, Phaistos, Mallia and Zakros. The first had about 80,000 people² and the vast palace for the king called "Minos", which was located there, was the largest and most elaborate of all. It had exquisite potteries and tiles, bath rooms with running water, toilets with drainage systems and evidences of rich appointments and jewelery. The construction of such palaces and its accouterments required any number of specialized craftsmen - architects, stone masons, carpenters, plasterers, painters, potters, sculptors, gem-cutters, glass makers, faience makers, smiths, weavers and probably others.

The five hundred years following 2,000 B.C. saw the ships of the Minoans roaming unchallenged on the Aegean Sea. The Cretan navy apparently cleared the seas of pirates and protected the homeland from invasion so that there was no necessity for any kind of fortification on the island. The commercial fleet was involved in extensive commerce with surrounding islands, the Near East and Egypt. The latter supplied scarab seals, carved ivories, copper and tin³ and Egyptian linen, while receiving olive oil, painted pottery, timber and woolen cloth. The Cretans are said to have had 100,000 sheep. An alabaster jar bearing the name of the Hyksos King Khyan has been found and confirms probable delegations and trade with Egypt. Perhaps from over-population, the Minoans sent colonists to various other islands and the mainland of Greece. The island Thera was an important Minoan satellite and a colony on the island of Kythera, between the western end of Crete and the Peloponnese, was started before 2,000 B.C. and was still occupied at 1,450 B.C. Cretan fashions spread throughout the islands and even to Greece and Asia Minor.

Recent excavations near Arkhanes, south of Knossos, have revealed a temple for the dead, dating to 1,800 B.C. with a noble woman burial which included such things as a gold signet ring with a cult scene confirming that Minoans, like other peoples of that time, had the ancient belief in the dying and resurrected god. There is evidence of animal sacrifice and apparently in times of great stress, as in the earthquake period about to be described, they even used human sacrifices. (Ref. [4](#), [5](#), [6](#), [7](#), [8](#), [9](#), [10](#), [11](#), [12](#))

About 1,700 B.C. violent earthquakes demolished the old palaces, but they were all rebuilt, for the most part on entirely new plans. During this rebuilding, Minoan civilization acquired its definitive

character and the buildings developed their unique charm, elegance and grace. In the period of the new palaces, the population of Crete has been estimated at 256,000 with 50,000 under the direct rule of Knossos. The palaces had great store rooms and work shops and the earliest writing had to do with accounting for wheat, oil, barley, olives, figs, livestock, wine and honey. Horses are not documented on the island before the 15th century B.C. when the technique of using heat to bend wood for spoked wheels became available. The overall society was a stratified theocracy with the priest-king at Knossos supreme and lesser priest-kings in the other palaces. The latter, in turn, were surrounded by their nobles and their women and beneath them was the peasantry, still living essentially in a Stone Age economy. In contrast to most other ancient civilizations there were no slaves. Among the upper classes both sexes wore jewelry and participated in art, dancing, music and when young and supple, in the famous bull acrobatics. The meaning of the latter is still not clear.

A little north of Crete in the Aegean Sea is the peculiarly shaped island variously known as Thera or Santorini. This is the remnant of a great volcano which had its first traceable eruption about 1,500 B.C. burying the island in ash and pumice. In 1967 Professor Marinatos discovered the tephra-preserved (covered with volcanic dust) town of Akrotiri on that island. In effect this Cretan extension was a Bronze Age "Pompeii" complete with terra cotta plumbing and town-house architecture. For fifty years or so after that first eruption Thera remained quiet, but we shall hear more of it in the next chapter. (Ref. 13)¹

1

C. Cyprus came into its own because of its geologic gift of copper. The Troodos Mountains of this island were once oceanic crust, thrust up some 70 million years ago by the advancing African and Arabian tectonic plates and they are loaded with copper and other metals. At first the ancients could simply pick copper nuggets off the ground. (Ref. 14)

GREECE

If one accepts the theory that the Kurgans of south Russia migrated

to Greece to become the Mycenaeans, the date of 2,300 B.C. is probably appropriate. Some believe there were two waves of these Kurgans, with the second wave coming just before 1,600 B.C. These were a hard-riding warrior class who dominated their earlier brothers to become a small, powerful, rich, ruling class. The original inhabitants of both mainland Greece and the adjacent Aegean islands were perhaps related to the Cretans in speech and race, but the development of civilization on the mainland had been arrested by massive invasions at the end of the 3rd millennium by barbarous peoples from Anatolia, and a century or so later by invaders from the north. The latter may have been the Kurgans, the first "Greeks", although some authorities believe that the Greek-speakers arrived much later. Like the Minoans, the Bronze Age Greeks⁴ had passed through centuries of humble living in small villages, obviously poor and with limited trade, chiefly with Crete. Of the various tribes, the men of Mycenaea soon dominated by virtue of chariot warfare and by 1,600 B.C. there was an advanced style of life, centered in that community, but with influences extending to Crete and influenced by Crete, with ships of both vying for control of the Mediterranean. Pei (Ref. 15) says that the classical Greek language was well differentiated by that time. The sail had been used after about 2,000 and this had allowed for better fishing and increased maritime trade. With domestication of the grape and olive, new industries appeared and thrived. Magnificent tombs, with masses of gold art objects are dated to the 16th century B.C. (Ref. 16, 17, 18, 19)

UPPER BALKANS

Excavations at Maliq, Albania, have proved that people lived there in 2,800 B.C., perhaps before the arrival of the Indo-Europeans, and they may have maintained some relations with Mycenaea. In the third millennium B.C. and for awhile after 2,000 B.C. most of the Balkans was occupied by the Tumulus, Battle Axe and Corded Ware peoples (Please see B. CENTRAL EUROPE, this chapter) who may have descended from the copper and goldsmiths described in the previous chapter. In the early second millennium, however, the area was crisscrossed with migrating tribes, particularly the Greek peoples, described immediately above. The Illyrians, settling in Yugoslavia, were an Indo-European group related to the pre-Celts

who were located just to the northwest in the present areas of Hungary and Austria. With the development of agriculture in the sandy, glacial soil of northern Europe at the end of this time-frame, the Balkans became something of a backwater. (Ref. [20](#), [21](#))

ITALY

The basic people of ancient Italy were the Western Iberians of the original Mediterranean race, and they were essentially the sole inhabitants of all Italy, Sicily, Sardinia and Corsica except for some coastal settlements by the eastern Mediterranean people, until about 2,000 B.C. when invaders descended from the north. The latter were the Italics, part of the western branch of early Indo-European speakers, related to the "Ligurian Celts". They built homes on foundations of piles (Terramara) and their descendants became the basic stock of present day Italy. By 1,850 B.C. these people had occupied all of Italy except the northwestern one-quarter which was occupied by Etruscans, who McEvedy (Ref. [22](#)) insists, were remnants of the Western Iberians. Ancient peoples also remained on Sicily and the western islands, although by 1,600 B.C. so-called "Celto Ligurians" from southern France had occupied Corsica and Sardinia. (Ref. [23](#))

CENTRAL EUROPE

By 3,000 B.C. all Europe but northern Scandinavia had farming communities. Indo-European speaking groups lived throughout central Europe from the beginning of this period's various modifications of the basic language. Professor Jan Filip (Ref. [24](#)), patriarch of Celtic history of Charles University, Prague, described a "Cord Ware" or "Battle Axe" people representing the first Indo-European speakers of this area, living there about 2,300 B.C. as the precursors of the Celts, and dominating the earlier Neolithic Cultures of northern central and western Europe. The Austrian Salzkammergut was settled about 2,500 B.C. with the inhabitants getting salt from salt wells. (Ref. [25](#)) As a general westward migration occurred the area became dominated about 1,850 B.C. by the Bell-beaker Culture, named from the bell shaped cups found in their graves. The origin of this pottery society has been much

disputed, some claiming it started in Spain and spread east to Germany, and some the reverse, but if it was, indeed, a culture endemic with the early Indo-Europeans, then the expansion must have been westward from the original Indo-European zone. The Aunjetitz Culture, a variation of the Bell-beaker, flowered in southwestern Germany and Austria from the 18th to the 16th centuries B.C. Excavations in the latter country have revealed bronze needles, arm spirals, daggers and ceramics with intricate detail. As agriculture spread, sometimes as seeds were moved to new climes they would scarcely grow and weeds would take over the fields. On some of these occasions, however, it was discovered that the weeds themselves could be used and cultivated instead. In this manner rye and oats developed in northern Europe. (Ref. [26](#), [27](#), [28](#), [29](#), [30](#))

WESTERN EUROPE

There was a late Copper Age in Spain with techniques coming across southern Europe from the Caucasus, after 3,000 B.C. A source of tin was found in northwest Spain so that the area could readily participate in the bronze industries between 2,500 and 1,500 B.C. Some of the metal-using communities, such as those in southern Spain and Portugal about 2,500 had to be fortified and some had two high walls with outlying fortresses to give warning of attack. Defenders fought with bow and arrows. (Ref. [31](#))

In the last chapter we discussed the 4th millennium inhabitants of England, the Windmill Hill people. It was probably these who, at the beginning of the 3rd millennium, started to build a series of remarkable stone monuments in southern England. The best known and most thoroughly investigated, written about, photographed, painted and romanticized of these, is Stonehenge. The original structure, Stonehenge 1, dates to not later than 2,900 when there were already some 180 separate habitation centers in Wessex. At Stonehenge, first of all there was dug a circular ditch some 1,050 feet in circumference, 4 1/2 to 6 feet deep and 12 feet wide. The purpose of this was to supply the chalk soil for a bank which was thus built up along the inner side of the ditch. It has been estimated that this alone required about 28,000 man-hours of work, using red-deer antlers for picks and whatever for shovels. The bank measures

320 feet in diameter and was at least 6 feet high, although some say 20 feet, with a causeway entrance on the northeast. Only a few stones were used in Stage I, a couple at the causeway entrance and perhaps the four Station Stones, but a mysterious feature was a group of 53 post holes also in the causeway entrance.

Most modern scholars are convinced that these were used for precise and constant observation of the extreme northerly risings of the moon for a hundred years or more. It requires nineteen years for the moon to exactly repeat its course in relation to the earth and sun, so that predictions of moon positions, possible eclipses, etc. require long periods of observation. The average diameter of the post holes is 3 feet 6 inches, with a depth of 2 1/2 feet.

There is no evidence that they ever held stones or wooden posts. Some have yielded cremation remains, flakes of flint, cups, etc. all adding to the mystery. Professor Fred Hoyle (Ref. 32) believes that this was not built by local people, but by some who came especially to place the circle at the exact spot needed for some astronomical reasons.

After Phase I of Stonehenge was completed (but before Phase II) another enormous, strange construction appeared about one-half mile north of Stonehenge. This is a narrow horse-shoe shaped earthworks with each leg running for one and three-quarters miles, and which is called the "Cursus", because some have felt it represents a Neolithic race-track. There is some evidence that the bluestones which we shall see were used in Stonehenge II had earlier either been used for some purpose or stock-piled at the western end of this Cursus. There are about twenty similar constructions in Britain and this one is the second longest and it may even pre-date Stonehenge I. The longest Cursus is at Dorset and measures 6.2 miles in length. (Ref. 33) There are none of these constructions outside Britain.

Before the next phase of Stonehenge was constructed, the Bell-beaker people arrived from the continent (2,500-2,300 B.C.) with their copper working skills and their arrow-heads and daggers. Tin was discovered in Cornwall and a bronze industry could soon develop. It was these same Beaker folks who subsequently bridged the transition in Ireland from the Neolithic period to the Bronze Age between 2,000 and 600 B.C., introducing copper and gold ornamentation. These people also migrated into Scotland to fuse with the earlier flint users who had come from Ireland and Norway

at about 3,000 B.C. McEvedy (Ref. 34) calls the Bell-beaker people of the continent "Celto-Ligurians" and although we dislike getting involved in semantics, we feel that they were definitely not Ligurians and probably not rightly called Celts, as the latter were not yet definitely separated from the general mass of Indo-European speaking peoples of central Europe.

But to return to Stonehenge, Phase II dates to about 2,100 B.C., with the placement of a double Bluestone Circle, with stones six feet apart in the center of the original construction. Part of this, however, was never completed. The amazing thing is that 82 of these ophitic dolerite stones were somehow brought from their only source, the Prescelly Mountains of Dyfed, Wales, - some 135 miles "as the crow flies" or 240 miles by sea and land, each weighing several tons, to Stonehenge. Professor Gerald Hawkins⁵ has calculated that 209,280 man-days were required to move these stones. In addition to the Blue Stone Circles an "Altar Stone" was added, the entrance was widened and a new axis alignment made or astronomical sightings. This Phase II may have been influenced by the Beaker people.

The most spectacular part of the Stonehenge display, however, is Phase III, which consists of the Sarsen Circle of thirty uprights and lintels, some weighing up to 45 tons. These massive stones came from near Avebury and almost of necessity had to be moved on ice about the year 2,000 B.C. when England was much colder than before or since.

Professor Alexander Thom, astronomer and mathematician, although differing from Hoyle as to many details, is equally sure that these ancient stone builders were able to predict eclipses, and after many years of study believes that all the menhirs (long stones) and cromlechs (curved stones) of Britain and Brittany as well, are similar in purpose. There are of course other stone circles, some 900 all together, to be found throughout the British Isles. One, known as Durrington Walls, is two miles north of Amesbury and was built by skilled carpenters of about 2,500 B.C. probably with a sloping, cone-shaped roof and a central courtyard open to the sky. It is 1,720 feet in diameter. Areton(?) warriors undoubtedly inhabited these regions after about 1,900 B.C. forming a ruling power aristocracy which lasted some 600 years. The mysterious stone ring of Brogar on one of the Orkney Islands as well as the great tomb at Maeshowe date to 2,300 B.C., the same time as the construction of

the Egyptian pyramids. Later, at about 1,600 B.C., there was a time of high sea levels, and the coastal forests of Britain were inundated by the sea. (Ref. [36](#), [37](#), [38](#), [39](#))

The largest man-made mound of antiquity, rising to a height of 130 feet and spreading at its base well over 5 1/2 acres, representing an amazing surveying and engineering feat of Stone Age man, has recently been excavated at Silbury Hall, not far from Avebury, in Wiltshire, England. Multiple tunnels into this giant mound have failed to reveal any skeletons and its purpose remains unknown.

Recent figures show 4,350 dolmens (usually tombs), 2,070 menhirs, 30 cromlechs and 110 alignments in France. The most impressive of all may be the 3,000 units made up of 10 to 30 columns of menhirs stretched over two miles of countryside at Carnac, France. There may have been a select class of priests trained in studying the heavens, and these may have originated in England, with a later passing on of the secrets to the priests of the Celts, the Druids. Caesar wrote that the priestly discipline of the Celts was developed in Britain and was carried from there to Gaul, and by oral, not written, tradition. Professor Thom's studies indicate that all these stone monuments were built on multiples of a standard unit of measurement called the megalithic yard and which is the equivalent of 2.72 feet. Although men had worked on these monuments for 2,000 years, after about 1,500 B.C. no more were built. Professor Hoyle believes that later generations of astronomer-priests lost the ability to keep the astronomical systems up to date, began to make errors and then lost their followings. (Ref. [40](#), [41](#), [42](#), [43](#))

SCANDINAVIA

About 3,000 B.C. a few immigrants to Denmark brought agriculture and big, polished flint-stone axes to use as tools to clear the forest. These axes have been found by the tens of thousands. Dolmens of stone, such as we mentioned under WESTERN EUROPE, have been found in the range of three to four thousand and are more numerous in Denmark than anyplace in the world. Megalithic tombs were constructed and many dead were laid to rest in each, some of the dead wearing hundreds of amber beads.

Beginning about 2,500 B.C. there were people of at least four different cultures living side by side in south Scandinavia. They were:

1. The declining remains of the megalithic civilization.
2. The Single-grave Culture of Jutland, which was related to the next.
3. Boat-axe Culture of south Sweden.
4. Pitted Ware or Pit-comb Ware Culture, to be discussed below.

After 2,000 B.C. these various populations fused together in a Neolithic Culture which made beautiful daggers and other instruments of flint. By 1,500 metal work had appeared in a unique Northern Bronze Age.

After about 2,000 B.C. the amber beads no longer appeared in tombs, as the amber had begun to be traded to the Mediterranean civilizations. Stone cutting and flint quarries were early Danish industries. The Battle-axe people, later to be called "Teutons", appeared about 2,000 B.C., but they used no bronze for another thousand years. Farming communities were present all through southern Scandinavia throughout the third millennium B.C. and it was these Stone Age men who left the huge grave chambers. Finland and the far north were sparsely populated with the Pit-comb Ware Culture, characterized by ferocious looking, rod-like arrowheads. (Ref. [44](#), [45](#), [46](#))

EASTERN EUROPE

The Baltic area and western Russia were colonized chiefly by Indo-Europeans after 3,000 B.C. An exception was the nomadic ancestors of the Estonians who reached the Baltic from the valleys of the upper Volga. They were related to Finns and Hungarians, with a language which was not Indo-European. In the third millennium the Pit Grave Culture of the Ukrainian steppes showed wheeled carts and domesticated horses. This may represent the site of the proto-Indo-Europeans, although as mentioned above, the argument goes on. Soviet and German philologists believe that the origin of these people and their language had to be near the mouth of the Volga at the north end of the Caspian Sea, with spread from there both

westward into Europe proper and southward and easterly into Iran and then India. They refer to the people as "Ur-people" and the language as "Ur language". This concept has been seconded by the United States archeologist of Balt descent, Marija Gimbutas, after her study of the kurgans (burial mounds) of southern Russia. The Kurgan people seem to have left their homes between 2,400 and 2,300 B.C. to first invade the north shore of the Black Sea and then the territory of the Trans-Caucasus. The mountain people of the latter area had already had much contact with the Mesopotamian civilizations and had a civilizing influence on the barbarian Kurgans. The Hittites may have moved out from this culture in about 2,000 B.C. (Ref. 47) Old river names suggest that by 1,500 B.C. the entire region between the Baltic and the Alps, the British Isles and Hungary, was occupied by people speaking a single Indo-European idiom called "Old European Language" by the Indo-Europeanist, Hans Krahe⁶. A special section at the end of this chapter will give a more or less complete break down of the various Indo-European languages. In the meantime let us return to our narrative about eastern Europe in this particular time-frame.

The Ukraine and some areas farther east were soon colonized by pastoral groups, some of which were the ancestors of later-day Scythians. North of the steppe and desert belt in Russia, around fifty-five degrees north, there was a thin belt of deciduous forest with some farmers, and still north of that were scattered hunters of the reindeer. Copper working extended almost to the Arctic by 1,850 B.C. Peasant farmers from central Europe continued to push eastward along the forest belt of central Russia, growing the hardy cereals as crops and reaching Moscow and the southern Urals by 2,000 B.C. (Ref. 48, 49, 50, 51)

The Baltic linguistic group of northeastern Indo-Europeans came to the eastern Baltic and western Russia area before and about 2,000 B.C. as agriculturalists and cattle raisers. They originally reached northward to Finland and eastward to the upper Volga⁷, but only the southeastern Baltic groups survived through the Bronze Age, the Iron Age and down to about A.D. 500, living between the Oder and Dvina rivers. There are hundreds of Baltic loan words in the Finno-Ugrian languages. The Galindians (Golyad of Russian chronicles) were the easternmost Balts, extending up to the Moscow area and existing up until the 12th century of the Christian Era. Some islands of these people still existed around Smolensk, Vitebsk

and Minsk, almost up until the present time. The only true survivors today, however, are some families in Latvia and Lithuania, probably mixed with invading Germans, Poles and Russians through the centuries. They at least still have Baltic languages. (Ref. 52, 53)

Even after 2,000 B.C. the Fatyanovo Culture existed in central Russia. By 1,800 three rather distinct peoples occupied their own zones in eastern Europe. In addition to the Balts, which we have described as occupying the Baltic area, to the south was a band of Slavs extending from far in Russia west to the Vistula, and finally the entire southern area west and just north of the Black Sea was occupied by the Thraco-Cimmerians. At 1,600 B.C. the Balts and Slavs were still without the use of bronze, although it was in common use to the west with the proto-Celts and to the south among the Thraco-Cimmerians. (Ref. 55)

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1. Dr. Frank Stubbings (Ref. 1, page 2) believes that the Cycladic and Minoan originated at about the same time (2,800 B.C.) and existed side by side, along with the Mycenaean on the Greek mainland
2. Cotterell (Ref. 3) says no less than 20,000 between the years 2,000 to 1,700 B.C.
3. Cotterell (Ibid) reports that there was adequate copper available locally and that tin was imported from Bulgaria and Romania
4. The terms "Mycenaeans" and "Achaean" both simply mean "Bronze Age Greeks"
5. As noted in Balfour (Ref. 35, page 90)
6. "Volga" is a Baltic word meaning "long"
7. As noted by Herm (Ref. 54), page 71

Europe: 1500 to 1000 B.C.

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

The Cretan civilization ended within the first fifty years of this time period but the exact nature and cause of the destruction is not known. Syridon Marinatos, late Inspector General of Antiquities of Greece, believed that Crete was destroyed by a tremendous volcanic action in Thera, the island known anciently as Kalliste and later also as Sartorini. This last eruption of the Thera volcano was followed by massive tidal waves as the island center collapsed, and these waves surged outward perhaps 650 feet high at probably two hundred miles an hour, dealing the settlements of Crete a pulverizing blow. The ash was carried as far as 1600 miles, killing vegetation and choking harbors. The force of this volcanic explosion has been equated with that of 500 to 1,000 atomic bombs. The ash fallout plunged the Aegean Sea area into night for weeks. Total deposits of the ash on the remnant of Thera are still two hundred feet deep and the same ash has been found recently to be a layer seven feet thick some 9,850 feet deep on the floor of the Mediterranean Sea, 87 miles from the volcano. Scandinavian scholars date this tremendous upheaval of the Mediterranean world as late as 1,200 B.C. and feel that the Sea People who roamed the Mediterranean, raiding the coasts of Asia Minor and Egypt were displaced peoples from island and other coastal civilizations destroyed in this great cataclysm. The period is likened by Heyerdahl (Ref. 1) to what he has described as a similar great unknown tumult of just before 3,000 B.C. There is no doubt but that the blast completely changed the Mediterranean, whether it completely destroyed Crete or weakened it for subsequent invasion by Mycenaeans, or whatnot. The Thera explosion was four times

greater than the A.D.1,883 Java eruption that took 36,000 lives and spread a cloud of ash around the earth' (Ref. 2, 3, 4)

Arguments still go on about the actual dating of the great Thera incident, some recent revisions of radio-carbon datings indicating that it occurred about 1,600 B.C. and thus could not have had direct bearing on the Cretan demise. Regardless, there is no doubt that even before its final end, Crete had been subjected to devastating attacks in its island territories by the Phoenicians, new masters of the Mediterranean, and to attacks at home by the Mycenaean, "barbarian" Greeks. The latter, perhaps simply following their own warlike instincts for plunder, definitely came ashore on Crete, at least later, and left their marks, destroying whatever remained of all the palaces except Knossos, which they used for their own capital. The Mycenaean rulers wrote their language in Linear B which has now been at least partially deciphered and appears to be a form of ancient Greek. By 1,375 B.C. even Knossos was burned to the ground and whether this was done by rebelling, remnant Minoans or squabbling Mycenaeans chief s, no one knows. A disastrous expedition to Sicily had been undertaken at about that time, and its failure may have led to the fall of the Knossos lords. Still another view, however, is that Knossos remained functional until 1, 150 B.C. when it fell to invading Dorian Greeks. (Ref. 5) The last vestiges of the Cretan or Minoan civilization in their colonies along the coast of Asia Minor were also destroyed at a still later period by Ionian Greeks who then made their own settlements there. Remnants or refugees from the Cretan society are said to have fled to the Palestine coast, where they became known as Philistines¹. The Thera volcano was not the only cataclysmic occurrence of this period. There were earthquakes all over the Mediterranean and even northern Europe while volcanoes erupted in Italy and the Sinai and seismic tidal waves "caused the sea to recede from the land and even sucked out the rivers"². After 1,100 B.C. the Dorian Greeks, who had charged down the Greek peninsula, crossed over to Crete to repopulate it and become the ancestors of its present population. (Ref. 7) Rhodes was also colonized by Dorians from Argos in the 11th century B.C. (Ref. 8)

GREECE

Mycenaean power was dominant in the Mediterranean at least after

1,400 B.C.³ and their pottery was popular from Italy to the Turkish coast. They used many slaves, especially women who were used in the textile and bronze industries, as well as in private households. Some were captured in war, many were bought. Houses had flushing lavatories and bath rooms supplied with terra cotta pipes and sloping gutters. (Ref. 10) In the 14th century B.C. a giant mound covering a stone tomb was constructed at Mycenae which was 48 feet in diameter, 43 feet high to the tip of the dome and had a doorway topped with a lintel made of a 100 ton stone.

At about the 13th century B.C. at the height of their power and when the Mycenaeans controlled the Aegean world, they suddenly began to fortify all their cities and strengthen their defences, indicating a premonition of disaster. Other Greek speaking tribes had begun to drift down into the Greek peninsula by about 1,500 B.C. but it was not until about 1,300 that they were sufficiently strong to begin to usurp the Mycenaean power, so that by the end of that century the Mycenaean cities and fortresses were in ruins, the art degenerated and the written language (Linear B) had been forgotten. (Ref. 12, 13) 1,250 B.C. is usually given as the traditional date of the Trojan War, with complete collapse of Mycenaea by 1,200, but Cotterell (Ref. 14) gives the latter date as 1,150 B.C.

There were three main tribes of the new, invading Greeks, each with its own variation of the Greek language - Ionic, Aeolic and Doric. The Dorians, descending from the upper Balkans about 1,200 B.C. are generally credited with the actual destruction of the Mycenaean Kingdom. They took the best lands with the less favored regions left to the other tribes. Attica became Ionian, along with a group of cities across the Aegean in the central section of the Asia Minor coast, and from these people came the master institution of Greek civilization, that is, the polis. Physically the polis consisted of a town or city with an area of farm and pasture land surrounding it. Politically it was a community governed by magistrates and laws. All of the invading warriors had ancestral ties with central Asia nomads and still lived a similar life, eating sheep, goat and wild hog. Still another tribe, the Thessalians, entered Greece in the province which now carries their name, sometime before 1,000 B.C. (Ref. 15, 16, 17)

UPPER BALKANS

Thrace, in the area of present Bulgaria and a corner of present Greece along with European Turkey, began a lively period with identifiable rulers and Indo-European gods, at about 1,500 B.C. This country had two coasts - one on the Aegean and the other on a corner of the Black Sea - and thus was at the cross-road of West and East. The Thracians were formidable horsemen with a taste for battle, banditry and elegant gold objects. Their goldsmiths were producing masterpieces in the 13th and 12th centuries B.C. One of the largest gold finds of Europe's Bronze Age comes from Vulchitrun, Bulgaria and dates to this period, with many resemblances to the art of Mycenaea. They did not have a written language and knowledge of them has come chiefly through their Greek neighbors and recent Bulgarian excavations. This was the homeland of the Phrygeans, who began at this time to spread to Asia Minor. (Ref. 18)

ITALY

As noted in the last chapter, before 1,200 B.C. Italy was inhabited by a thinly scattered, backward population of dark whites of the Iberian or Mediterranean race. Then migrating Aryan Italics moved down, certainly by the end of this period, at 1,000 B.C., settled most of northern and eastern Italy, intermarried with the natives and established the Italian groups of Aryan languages. This included the Latin tribe south and east of the Tiber, and the Umbrians and the Sabines. These latter, living near Villanova, may have been the first Europeans to learn the use of iron. Extreme northern Italy, as well as the Mediterranean coasts of France and part of Spain, was originally peopled by a non-European speaking group called Ligurians. They were apparently pushed north by the Italics, where they came in contact with early Celts so that about 1,200 B.C. this Ligurian culture was absorbed into the Celto-Italic (Apennine D) and the people gave up their own language to take on the Celtic-P tongue. Subsequently they were referred to by some European historians as Celto-Ligurians. They soon adopted the cremation rituals of the Urnfield Culture. The Italics at the toe of Italy pushed the Sicels toward Sicily, which was inhabited at the time by the Sican tribe, of unknown origin and language. In Etruria, of central Italy between the Tiber and the Arno, there was a Bronze Age Culture called Apennine and there was an abundance of copper and

some tin for the making of bronze. Copper from the island of Elba was used throughout the 2nd millennium B.C. South Italy began to receive contacts from Mycenaean Greece as early as 1,300 B.C., particularly on the island of Pitheculasae on the west, and Vivara and Lipara, and by the 13th century B.C. Mycenaean imports were already common. (Ref. [19](#), [20](#))

For hundreds of years the peaceful farmers of Corsica had buried their dead in great stone chambers with nearby single, standing menhirs which were roughly-shaped, unadorned, raised stones, and some seven feet high. After 1,500 B.C. there was a dramatic change and these menhirs became distinct sculptures with carved heads, tunics, daggers and swords. Whether they represented war trophies or memorials to a courageous enemy is still debatable. At about this same time, or at least between the 14th and the 12th centuries B.C., a tribe of the Sea People, the Shardana, came by way of Libya across the Mediterranean and overran the southern part of Corsica, pushing the remnants of the original Corsicans north, and by 1,000 B.C. the latter had disappeared. The conquering Shardana burned their dead and did not put up monuments. (Ref. [21](#))

CENTRAL EUROPE

In this time-frame an Indo-European speaking, tall, blonde people emerged as a confederation of tribes from a prehistoric complex and began to inhabit the bulk of Europe, spreading out from a "nest" around the rich ore fields of Bohemia and the central German mountains. Called Unetice, the distinguishing feature of this Bohemian-central German culture up until about 1,500 B.C. was the burial mound, but by 1,300 they had given this up in favor of cremation with the ashes of the dead placed in urns in cemeteries, and thus becoming known as the Urnfield Culture. This became the custom of later peoples, including the Italics, Venetians and Illyrians., and it may also have been the cradle of the three linguistic variations of "Old Indo-European" and possibly also that of the Phrygians and Armenians who settled in Anatolia about 1,200 B.C. All of these people were farmers, not much inclined to village life, raising animals, hunting, sacrificing to sun-gods, using the battle axe and both two and four wheeled chariots. People later to be identified as true Celts had probably not become

differentiated at this time, although there is much confusion in the literature on this point, and many would call the early waves of Indo-Europeans of the Urnfield Culture by this name. (Ref. 22)

It is probable that after 1,220 B.C. the Scandinavian branches of the old Indo-European peoples which had migrated south after the catastrophes which seem to have occurred there in the 15th century (See SCANDINAVIA, this chapter), reached central Europe and spread with the local people in various directions - some to the Apennine peninsula to become the Ambrones, later Umbrians - some drove the Veneti to northern Italy and the forefathers of the Illyrians to Yugoslavia, and the Phrygians and Armenians to Anatolia – and finally some went to Greece. In the far north of the continent proper, the Thuringians Germanized north Germany and the Goths, Burgundians, Alemans and Marcomans prepared to move west as the Lausitz Slavs moved in behind them. (Ref. 23, 24)

WESTERN EUROPE

It was in the 12th century B.C. that Phoenicians from Sidon first settled on the coast of Spain, building a light house at La Coruna to be used as a guide for their ships going to England for tin. Soon after, other Phoenicians from Tyre established trading posts along the Guadalquivir River and finally founded Cadiz about 1,100 B.C. (Ref. 25) At this period Spain had a basic population of dark whites who may have been the ancestors of present day Basques, and there were Ligurians on the west coast. The latter had invaded from France and were actually a mixture of early or pre-Celts with Celtic speaking Ligurians who were numerous in France. McEvedy (Ref. 136) insists that about 1,200 B.C. a branch of these same people crossed over into England, conquering and intermarrying with the natives, who were already a mixed group of dark-haired and dark skinned people, possibly Iberian in origin, and light-haired Scandinavians. All of these people spread throughout England and Wales. The area of Wessex was particularly prosperous, with trading contacts with most of Europe and the Mediterranean. Working on the assumption that some of these early invaders of the British Isles were actually Celts, we can differentiate two stocks:

1. The Goidels (Gaels) still surviving in northern Ireland and nigh Scotland, representing a survival of the earliest Beaker-folk with a Q-Celtic tongue
2. the Cymri and Brythons (Britons) still represented in Wales as the P-Celtic, Urnfield people. The latter were close kin to the Gaulic Belgi

(Ref. [26](#), [27](#))

SCANDINAVIA

As the early Celtic people spread across northern Europe, they did not enter Scandinavia, and actually even made a type of barrier cutting off some trade between Scandinavia and the Mediterranean areas. In spite of this some iron, which was the secret weapon of the Celts, seeped into Scandinavia, so that they also had what might be called a "Celtic Iron Age", even though their basic economy still depended mainly on imported bronze to the extent that their unique metal work developed a special Northern Bronze Age. People buried their dead in log coffins in barrows and the clothing and hair were preserved intact. Rock scribings of wild animals and legendary scenes hewn into rock continued to be produced throughout large areas of Scandinavia, including Finland, and even parts of northern Russia. The richest finds of these scribings straddles the Swedish-Norwegian border. (Ref. [28](#), [29](#))

The climate in Scandinavia was for awhile warmer and drier than today and then it became cold again. Glaciers expanded, the sea level sank and vines stopped growing. In the more southern areas the Teutonic or Germanic tribes were in growth and some had already migrated to Britain and back and forth to the main continent. Danish amber was in demand on the continent and by 1,000 B.C. the Danes decked themselves with ornate weapons and ornaments and used bronze lurs as musical instruments. Navigation science must have been fairly well established, as there was much sailing of narrow, keel boats about England, Jutland and Brittany and perhaps even to Gibraltar and the Canary Islands, where boat drawings similar to the Scandinavian ones have been found. (Ref. [30](#))

EASTERN EUROPE

The previously described Urnfield Culture, involving the burial of the ashes of the dead in urns, appeared in Poland about 1,300 B.C. and was also called the Lausitz Culture. These early people of Poland were the Lusatians, a western branch of Slavs. The eastern Slavs by the Pripet marshes of the middle Dnieper River did not use this burial method. North of both of these Slavic groups the Balts and/or Letts lived on the south shore of the Baltic. As indicated previously they may be neither purely Slavonic nor Teutonic nor Celtic. Their classical Baltic Bronze Age Culture, located between the Oder and Dvina, included local metal objects, pottery and burial rites in barrows surrounded by stone rings. To the northeast of the Balts all land area was sparsely inhabited by Finns and/or Lapps. The bulk of the southern branch of the Baltic Finns was the Estonians. Others of this group were the Livs (now about 1,000 remain on the tip of Courland) and the Votes. There are perhaps a few of the latter still around Narva, but they originally occupied all of Ingria. All of these Finns, like the Balts, came originally from the great arc of the Volga in the first half of the 2nd millennium B.C. and probably met with the Aesti, described by Tacitus. As they reached their Baltic homes, they intermarried with Balts and Lapps in an amount unknown. Southern Russia, from the Carpathians to the Caspian Sea was inhabited at that period by the Aryan Cimmerians, probably closely related to the Thracians. The Cimmerian name is preserved in the Crimean peninsula of the Black Sea. (Ref. [31](#), [32](#), [33](#))

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1. Mc Evedy (Ref. 6) says that some refugee Achaeans may have been with the Cretans as they "transformed" into Philistines, as there are close parallels between Philistine and Mycenaean pottery.
2. Herm (Ref. 9), page 87
3. Grant (Ref. 11) writes that the Mycenaean civilization started at 1,700 B.C.

Europe: 1000 to 700 B.C.

EUROPE

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

The great island empires of previous centuries no longer existed, and all of these areas were integral parts of either Greece or Asian states. For example, the southern half of Cyprus was now under Phoenician influence, while the northern half, along with

Rhodes and Crete were under Greek control. At various periods around 800 B.C. Assyrians, Egyptians and Persians conquered Cyprus, but let native kings rule. Dorian Greeks continued to control Crete, however. (Ref. [1](#))

GREECE

As the classical Greeks multiplied and migrated down the peninsula they did not develop a civilization of their own but, as barbarians, they wrecked one (Cretan and Mycenaean) and then built a new one out of the old. The Mycenaean cities and culture were so destroyed that even the art of writing was lost until about 800 B.C. when the Greeks adapted the Phoenician alphabet to their language. (Ref. [2](#)) "Alpha", "beta", "gamma" are not Greek words, but come from Semitic terms for ox, house and camel.

The development of iron working techniques also contributed to cultural change and a well proportioned "geometric" pottery appeared about 900 B.C. This later turned up in Etruria in Italy, perhaps as copies. Early Greece was not fertile enough to support a fast-growing population and the need for more land, coupled with political oppression by the ruling classes led to two hundred years of extensive colonial expansion involving all the shores of the

Mediterranean as well as the Aegean islands, Sicily, and Thrace. The colonies soon became independent of the mother cities, which continued to fight among themselves. Thucydides dates the earliest sea battle of history to about 712 B.C. between Corinthians and Corcyraeans. Corinth was formed from the union of a group of villages early in the 8th century B.C. and soon was wealthy because it was on the key land route between all the Hellenes (so-named from the mythical King Hellen, progenitor of all Greek peoples).

The Greeks added vowels to the Phoenician alphabet, and soon their language and their love of beauty fused into the Greek genius which transformed the world of that time.

NOTE: Insert Map Reference 97: Greek and Phoenician Colonies

The first Olympiad was held in 776 B.C. (Ref. [3](#), [4](#), [5](#), [6](#))

The fertile, wooded island of Euboea, just off the Greek coast became a great maritime power about the 9th century B.C. establishing a trading post at Al Mina on the coast of Syria which subsequently became a great source of gold and silver. Similarly, in the 8th century B.C. they established a trading post on the island of Pithecusae off the west coast of Italy for development of trade with the Etruscan city-states. (R-75)

UPPER BALKANS

The upper Balkan area seethed with Dacians, Thracians and Greeks and at this time a horde of ferocious, bearded, barbarian giants, the Scythians, appeared around the Black Sea, displacing the Cimmerians from around the north shore and the Crimea.

At the same time, the Greeks were bringing civilization back into the area of Thrace with various colonies along the Aegean coast. Iron working was well established along the Thracian and Illyrian areas. Colin Renfrew (Ref. [7](#)) believes that the Thracian goldsmiths, working in Bulgaria, were the descendants of the Copper Age mound-makers described in earlier chapters.

ITALY

The Terramare peoples had already spread through eastern Italy and part of Sicily by the era under discussion and probably became

the Samnite, Sabine and Latin tribes, as mentioned in the last chapter. In Etruria, between the Arno and the Tiber, in the 10th and 9th centuries, B.C. there were groups of Iron Age villages and by the next century special bronzes began to be imported from Sardinia. Between 750 and 700 B.C. various hill top villages in this Etruscan area began to be consolidated into city-states, with true urbanization. The first was Tarquinii, some miles north of the Tiber mouth on the west coast; then Caere to the south, reaching the Tiber; then Vulci to the north of Tarquinii; and finally Clusium and Veii, as inland city-states. All were fundamentally Etruscan people, speaking a non-Indo-European language which was known later to educated Romans, but which remains essentially untranslated today. The first three city-states mentioned above became independently strong sea powers, with large trade potentials based on enormous copper, iron and tin mines in the mountains of their respective regions. They traded these much wanted metals for gold, first through the Phoenicians from Sidon and Tyre, then after 800 B.C. with Carthaginians who established commercial outposts in Italy, Sardinia and Sicily, (as well as in France and Spain). In the 8th century it was the Greeks from the island of Euboea who established their large trading centers on the island of Pithecusae and on the mainland nearby at Cumae, to get the metals from the various Etruscan city-states and the Etruscan held island of Elba. The Euboean connections with Syria and Asia Minor also allowed the distribution of Oriental objects in Etruria. Another product from the region of Campigliese was alum, used particularly as a binder in the dyeing of fabrics and shoe-leather, both of which were Etruscan specialties.

About 1,000 B.C. Villanovan migrants from the Danube, using iron, crossed the Tiber and settled in Latium, exterminating or marrying the existing population. There was undoubtedly a great deal of shifting of populations and many of the Villanovans may have become assimilated into the Etruscan city-states and certainly many Greeks became permanent residents there, bringing much of their culture with them. The Etruscans of Tarquinii spread southward across the Tiber to Capua as early as 800 B.C. probably to facilitate trade with Cumae. It is a mistake to consider the Etruscans as a single, homogenous group, as they lived in their separate city-states, sometimes trading with each other, sometimes fighting and usually failing in every attempt at any coordinated

efforts. Grant (Ref. 8) says that they were much like the modern Japanese in that they were great imitators and they copied all Greek works of art, adding some of their own improvements and unique variations.

There were settlements of some type at Rome probably through the 10th and 9th centuries B.C., but the traditional date for the official settlement of Rome is always given as 753 B.C. Just across the Tiber the Etruscan city-state of Veii was formed by a coalition of villages between 750 and 700 B.C.. Ancient writers said that it had a population of 100,000 but this was undoubtedly an exaggeration, although it probably was as large as Athens. Veii had no metals, but became rich from agriculture and the salt beds at the mouth of the Tiber. Rock-cut arched drainage channels and tunnels, sometimes two miles long, were made to facilitate drainage and their roads were excellent.

Based on Herodotus' reports from Lydian sources, the traditional concept was that the Etruscans came from Lydia in Asia Minor, but almost all modern authorities feel that this is completely in error. (Ref. 75). McEvedy (Ref. 9) believes the Etruscans were natives of the old Iberian group and that their higher culture developed from early contact with Greeks who were interested in the Elban and Etrurian iron and copper deposits. This view is strengthened by the Cambridge University Encyclopedia of Archeology (Ref. 10) which says that the 10,000 known Etruscan inscriptions belong to an old Mediterranean substratum still largely undeciphered. Michael Grant (Ref. 75) gave further documentation of this view in 1980. It is of interest that non-Indo-European languages were also spoken by the Ligurians and Raetians of northern Italy, the Corsicans, Sardinians and the Sicans of western Sicily. Tharros was a Phoenician port on the west side of Sardinia which received gold from Spain and then traded it extensively with the Etruscan cities for their own metal and agricultural products. It was the wealthiest of all the Sardinian cities, with multiple workshops for production of gold, silver, precious gem jewelry and ornaments. (Ref. 11) Bronze objects from these Sardinian workshops were arriving at Etruscan harbors throughout the 9th and 8th centuries B.C. In other parts of Italy, proper, there were the Iron Age groups of Picentes, Veneti and Iapyges. Some Etruscan city-states, particularly Volaterrae and Clusium, also extended their trade and influence north into the Transalpine regions. By 750 B.C., under this impulse, Felsina¹ had

become an economic power, as an amalgamation of villages with easy access to Etruria.

CENTRAL EUROPE

About 1,000 B.C. various branches of the Urnfield Culture, a group of related tribes with common culture and burial practices, dominated the Rhine/Danube axis, and began to expand into valleys of the main river thoroughfares. Four main branches gave rise to important groups of historic peoples: Celts in the west along the upper Main, Moselle and the Rhone, Slavs in the north from the Elbe to east of the Oder, Italic-speakers in the region of Hungary and Illyrians in the southeast about the river Tisza and Muresul. (Ref. 12) Some would say that the Celts did not really emerge as a distinct people of common language, religion and culture until about the 8th century B.C., and as manifested in the Hallstadt Culture (800-500 B.C.)², located near the richest salt deposits in Europe and definitely influenced by the Etruscans from the south. In 1846 some 1,100 graves were opened in the Nieder as well as the Hallstadt regions of Austria, showing the extensive iron utilization and decoration of this Celtic Age. The Celts were energetic and inventive, using iron for tools and weapons. "They introduced soap to the Greeks and Romans, invented chain armor, were first to shoe horses and give shape to hand saws, chisels, files and other tools we use today. They developed seamless iron rims for their wheels, set our standard 4 feet 8 1/2 inch railroad gauge with the span of their chariots, pioneered the iron plowshare, the rotary flour mill, a wheeled harvester two millennia before Cyrus McCormick³.

Farther north there was ever increasing pressure from the Germanic tribes with some Teutons already moving up the Elbe and Rhine. The oldest Germanic wind instruments date back to 800 B.C. In a triangular area in northern Europe bounded by the rivers Aller and Saal in the west, a line running east from the river Somme to the Taunus mountains to the head of the Saal, and by the North Sea coast on the northwest, there were no Celts, and before the Germanic tribes began their migrations from the east and north, the people in this area spoke an older language than either Celtic or German. Some place-names in this region still bear the stamp of this unknown tongue, another example of ancient Europeans who did not speak an Indo-European tongue. (Ref. 15, 16)

WESTERN EUROPE

In the early part of this period, the people of western Europe were in a middle Bronze Age, speaking languages at present unknown. In Spain the Phoenicians had reached the lower reaches of the Guadalquivir River in Andalusia and they traded for metals mined by the natives, who seem to have been mainly Basques. The largest Phoenician city was Tarshish (Greek - Tartessos) and the script they used is called Tartessian, an only slightly modified Phoenician. The ships of Tarshish were the largest sea-going vessels known to the ancient world.

The first Indo-European speaking tribes who emigrated into France between 900 and 700 B.C. ran into the Ligurians who were short, muscular farmers, dangerous in battle. They had already had contact with Greek traders and Greek civilization. (Ref. [17](#)) By the end of the 8th century B.C. Indo-European peoples were pouring into all areas of western Europe and even before that there was extensive trading occurring from the continent to Britain, as evidenced by the imported tools, weapons and trinkets. It will be recalled that the possibility of still earlier migrations of Celtic-speaking people to the British Isles was mentioned in the last chapter. It is possible that the Picts of Scotland were descended from the prehistoric Abernethy Culture, people who may have migrated from Germany to Scotland about 1,000 B.C. Our very limited knowledge of their language suggests a mixture of Celtic and some older speech. They were excellent metalsmiths and had a symbolic art which survives on some stones. (Ref. [18](#), [19](#), [20](#)).

SCANDINAVIA

Denmark continued in an extended Bronze Age with a non-egalitarian society based on a mixed farming and herding economy. But the Danes were also highly skilled metallurgists and carpenters and had contacts with central Europe. The political leader was also the religious leader and there was an elite class who controlled trade and religion. While in the early Bronze Age, preceding the period under discussion, the dead were buried in wooden coffins, in later times (1,100-500 B.C.) cremation was common and the ashes were of ten placed in a pottery urn. Archaeologists have uncovered about 350 hoards of bronze and occasional gold objects which may

have represented religious offerings of some kind. The objects included tools, swords, neckrings, armbands, brooches, belt ornaments, buckets, cups, bridle bits and shields, all of excellent workmanship, perhaps constructed by very specialized craftsmen. Eighty-one of the hoards, dated from the 9th to the 8th centuries, B.C., all contain women's ornaments in what appear to be special sets. The presence of animal bones and harvesting sickles in some hoards suggest that part of the purpose of the hoards was to insure fertility of the crops and herds. (Ref. 21) The Danes also developed their own Iron Age, using bog-iron. The people of Jutland of this period were the Vandals about whom we shall hear much more in later chapters.

Southern Sweden also continued its Bronze Age culture at this time and there was a general spread of Teutonic tribes throughout the area.

EASTERN EUROPE

Along the Baltic coast were German tribes and Balts. From the Elbe east to beyond the Oder were the proto-Slav, Urnfield Culture Lusatians, destined to become the Western group which had migrated from the east Carpathians to the Dnieper area became the Eastern Slavs. Some 140 miles northwest of Warsaw the Lusatian town of Biskupin has been excavated, showing an extra-ordinary stone enclosed area of five acres with one hundred identical houses arranged in thirteen rows, all made of oak and pine. a 130 yard-long wooden causeway linked the city, which was originally on an island in a lake, to the mainland. It is obvious that in addition to being skilled in the use of wood these people had a high social development, and some feel that their knowledge was carried over later to the Druids of the Celtic people.

By 800 B.C. the Eastern Slavs were completely conquered by the ferocious Scythians who took over the area about the Black Sea. The Slavs of this region were the ancestors of the Russian, Ukrainian and White Russian peoples, and they had an innate aptitude for work in metal. The Scythians were primarily of Indo-European stock but may have had some added Mongol elements. In addition to dominating the local Slavs, the Scythians displaced the Cimmerians who had previously occupied the north shore of the Black Sea about the Scythians because much that has been

described about them has come from Herodotus' The Persian Wars (Ref. 22) and one must always take this tales "with a grain of salt". In Book IV he described a visit to Scythia and wrote of their legends and customs. These included various barbarous activities including their propensity for beheading an enemy, then skinning him and making coats, caps and cushions from the skin. The skulls may have been used for drinking cups, after gilding of the interiors. The blood of the first victim was always drunk and scalps were taken to be later used as napkins. Herodutus told of hard, cruel men with leathery skin, filthy hair, wild cavernous eyes and many wives, all loving strong wine and smoking hashish while living chiefly in the saddle. (Ref. 23, 24, 25) They must not have been completely savage, however, as archeologists have shown that they produced highly developed arts and crafts with gold necklaces, miniature, cast animal figures and delicate glass ware. (Ref. 26) ***(*Page 1185)1

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(Ref. 27)

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1. "Felsina" was an Etruscan name, later called "Bononia" by Romans, after the conquering Boii Gaulic tribe. It is now "Bologna".
2. Herm (Ref. 13) dates the Hallstadt Culture from 700 to 450 B.C.
3. From Merle Severy (Ref. 14), page 588.

Europe: 700 to 601 B.C.

EUROPE

Beginning about 700 B.C. and lasting for the next 1,000 years most of Europe seems to have been somewhat colder and moister than it is now. (Ref. 1)

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

Crete remained under Dorian Greek control, while the Aegean islands overall belonged to a mixture of Ionian and Dorian tribes. Rhodes remained independent and even had a colony on Gela, in Sicily. (Ref. 2)

GREECE

The Greek civilization continued to develop in Greece proper as well as on the coasts of southern Italy and Asia Minor. There was a series of city-states, most of which were aristocratic republics by the end of this century. Cavalry played a decisive role in inter-state warfare and only the wealthy could be cavalymen, with the result that noble landowners developed an increased influence. Sparta was supreme in the Peloponnese, while Athens was the major power in Attica. The hillsides of Attica had already been denuded of lumber for houses, ships and charcoal for metal working by 650 B.C. and the consequent erosion of the marginal land removed the soil to the point where little would grow and the peasants began to go into debt. All of Greece had poor land for livestock and thus with scarcity of animal fats, the Greeks cultivated olives for their oil, and depended on food imports for the remainder of their food necessities. The urgent need for grain stimulated much of their later

enterprises.

Metal coins were introduced stamped with the likeness of an ear of wheat. Although gold, ivory and marble were used on sculpture and public buildings, the common people lived in houses of sun-dried brick, built on rubble in narrow streets strewn each day with litter thrown from the houses. Wives were held to housekeeping and childbearing while husbands, if they could afford it, openly took concubines and associated with the hetairae, women of education, wit and beauty, groomed for this profession, not unlike the Geisha of more modern Japan. There were about ten slaves for every free citizen and it was felt that about one hundred slaves were necessary to keep one philosopher in comfort. (Ref. [3](#), [4](#), [5](#))

UPPER BALKANS

The Greeks had cities on the Black Sea coast of present day Bulgaria and Romania while Thrace began its period of highest culture. The Macedonians were Greeks, speaking a dialect remotely connected to those in Greece, proper, but developed separately. A series of local chieftains ruled until the middle of this century when the country was partially united by King Perdiccas I. (Ref. [6](#))

ITALY

On the Italian peninsula there were multiple tribes, including the Latins and the Sabines, but dominating most of the north and central parts were the Etruscan city- states. Rome, itself, was ruled after 616 B.C. by Tarquinius Priscus, son of a Corinthian Greek man and an Etruscan woman. The Etruscans absorbed writing and other elements of the Hellenic civilization, assimilated and changed them and passed them on to other Italic peoples. The Latin alphabet was derived from the Etruscans, but the latter were never able to inflict their language on the Romans and in essence Rome remained a city of a dual culture. The Etruscans, themselves, had attained a certain degree of unity of culture and language. They attempted to form an Etruscan League, but the ties with adjacent tribes were more religious and cultural than truly political and concerted action was difficult to obtain. The Etruscans were superior engineers, and the Roman Theophrastus, writing later in the third century B.C. stated that they cultivated medicine and were rich in their pharmacopoeia. There is some evidence that they excavated tunnels and leveled hills to drain swamps as malaria control projects. They definitely

practiced some surgery and dentistry, using gold wires in the latter field. (Ref. [7](#), [8](#), [9](#), [10](#), [11](#), [12](#))

The Etruscans seemed to particularly like the painted pots and vases brought from Corinth in Greece and were soon imitating them on a massive scale. Near the end of this century, due to the acquisition of more metal resources, perhaps at the expense of Tarquinii, the city-state of Caere became enormously wealthy, covered about 375 acres and had a population of about 25,000. Saleable copper and iron allowed them to acquire massive quantities of gold from the Greek markets of Pithecusae and Cumae. There is a strong possibility that the Etruscan alphabet, an adaptation of Greek letters in use in the Greek markets, was introduced to Etruria by way of Caere.

At about this same time the city-state of Vetulonia apparently became another prominent Etruscan community, lying just northwest of Vulci and characterized archeologically by great mound tombs, some of which reached a height of nearly fifty feet. Large stone sculptures have been found in these tombs, consisting of both male and female figurines and apparently adaptations from Syrian originals. Bronze horse-buckles indicate much horse traffic. Jewel works with a special granulation process of applying tiny grains of gold were typical. Village amalgamation into a single city perhaps occurred just at the end of the century. (Ref. [13](#))

There were Greek cities in Sicily and on the southern tip of Italy. In particular, there was Sybaris, a city of renowned wealth, situated in the toe of the Italian boot. Its inhabitants delighted in luxury and pleasures, features which gave rise to the term "sybarite", still in our vocabulary. It has only recently been located, now buried twenty feet deep in water soaked soil. The Carthaginians had a trading post at Motya in western Sicily, just after 700 B.C.

CENTRAL EUROPE

This was an age of Celtic domination, but with gradually increasing pressure from Germanic groups descending from the north. It was the late Iron Age in Austria and people wore bracelets, anklets and decorations over their chests. Intricate designs in iron with piece interlocking with closed eyes, perfect animal figurines, etc. can be found in the collections from multiple excavations of this era. Celtic ornamentation was greatly influenced by Scythian modes and the latter also contributed a new concept of cavalry, including snaffles,

two-part bits and movable side reins. (Ref. [14](#))

WESTERN EUROPE

SPAIN AND PORTUGAL

The Iberians in most of this area were overrun by the Urnfield Celts except in the south, where the Tarshish Culture persisted and resisted the Celtic Hallstatt and later La Tene Iron Age Cultures. Contact with Phoenicians and realization of the local mineral wealth, resulted in the development of the only really native unit in this Kingdom of Tartessos. Greeks also came to this area about 630 B.C., introducing olives¹ and grapes. Investigations in Portugal and Spain in 1975 and 1976 revealed stone writing in the Celtic Ogam, but using Libyan and Phoenician languages, indicating a fusion of Gaels and native Iberians with Semitic and Libyan sailors. Fell (Ref. [15](#)) believes that it was from this area that mariners sailed on across the Atlantic to America at this time, and regardless of one's acceptance or non-acceptance of Fell's theories, there is definite archaeological evidence that the sailors of Tarshish sailed up the Atlantic at least as far as Brittany, to obtain Cornwall tin. Only limited excavation of the Tartessian urban developments have been made to date. (Ref. [16](#), [17](#))

FRANCE, NETHERLANDS AND BELGIUM, AND BRITISH ISLES

This part of western Europe was now almost entirely Celtic. The Celtic languages had two large divisions which the Welsh Sir John Rhys (1877) called the Q-Celtic and P-Celtic, with the former using Q,K or Ch of ten where the latter used P or B. The ancient representatives of the Q-Celtic speakers were the Goidels (Gaels) and probably the Celts of Spain and Portugal, with the modern descendants being the speakers of Irish and Scots Gaelic and Manx. The ancient P-Celtic speakers were the Brythonic peoples of Britain, the Gauls of central and eastern Europe and the Picts of Scotland. Their descendants are the current Bretons of Brittany, the Cornish and the Welsh. Of interest is the fact that while the P-Celts wrote using Greek or Latin letters, the Q-Celts originally wrote in a now defunct script called "Ogam", which had an alphabet of fifteen letters, all consonants and developed from a finger sign language. Later some tribes added more consonants and vowel signs. (Ref. [19](#),

SCANDINAVIA

While Norway, Sweden and Finland remained in a Bronze Age culture, Denmark had both bronze and iron. This was a time of Germanic tribe growth, particularly in the latter country. Ty, in northern Jutland, was the alleged homeland of the Teuton tribe, while the Cimbrians are said to have originated in Himmerland. There is still no complete agreement on the relationship of the early Germanic and Celtic tribes. In ancient times they were often confused, and apparently there was not a great deal of difference physiologically. Language was supposedly the chief difference, but even with that problems arose with such tribes as the Teutones and Ambrones whose languages may have been mixtures with both Celtic and Germanic elements. (Ref. 21)

EASTERN EUROPE

Southern Russia was dominated at this 7th century B.C. by the Scythians who finally absorbed some culture from the rising Persian civilization on one flank and the Greek cities of the western and northern shores of the Black Sea, on the other flank. Some elaborate gold sculptures of that time have been found in Scythian burial mounds. Northern Russia and the Baltic area remained as described in the last chapter. (Ref. 22)

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1. Trager (Ref. 18) credits the Phoenicians with bringing the olives to Spain

Europe: 600 to 501 B.C.

EUROPE

SOUTHERN EUROPE

In this and the adjacent centuries there was extensive admixture not only of cultures and materials but of peoples, themselves, throughout all areas of southern Europe and even northern Africa and the eastern Mediterranean. There were migrations of peoples from Greece to the Aegean islands and Asia Minor and to Italy and southern France, while Phoenicians and Carthaginians moved to Italy, Sicily and Sardinia and the various tribes in both peninsulas intermingled, fought, traded, usurped territory and consolidated villages. Peoples of varying races and languages seemed to live side by side at times, only to fight at other times. Just as diverse languages seem to be no impediment to students, business men, teachers and travelers in Europe today, so it seems to have been true throughout the centuries. Thus eastern and Greek influences became prominent in Italy and the western Mediterranean. (Ref. [1](#))

EASTERN MEDITERRANEAN ISLANDS

There was no great political change in this century from the last except that Persia took over Rhodes and its colonies. (Ref. [2](#))

GREECE

The node of Greek trading was at the Peloponnesian isthmus and Greece's first major city, Corinth, had developed there. About 600 B.C. a paved way allowed ships to be hauled across the isthmus. What Corinth owed to this key position geographically, Athens owed to the discovery of silver at nearby Laurion. It was with this that Athens subsequently financed its navy using a slave work-force

running to five figures. (Ref. 3) The Ionians attained great naval strength, but Samos, under Polycrates, became a great seapower also, using long-boats with as many as fifty oars. Greece continued to be polyglot with even the Ionians having four different dialects. (Ref. 4, 5, 6, 7)

As the city-states increased in population subsistence became a problem in view of the poor soil, and various cities solved the potential crisis in various ways. While Corinth and Chalcis established overseas colonies, Sparta attacked and conquered nearby Greek neighbors and thus developed a military state. Athens, on the other hand, developed a specialized agricultural export trade and started manufacturing based on the export of wine and oil from their grapes and olives, in exchange for grain. Miletus and Eretria participated also in this trade. In Attica the tyrant¹ Peisistratus started a policy of granting state loans to farmers who planted their land with grapes or olives. Solon forbade the export of any agricultural product except olive oil and this was the final touch as far as Greek soil was concerned, because the deep tap root of the olive tree soaked up the moisture far down in the limestone and did nothing to feed top soil. Even though Athens grew rich on the silver and olive oil, basic food supplies still had to be imported, necessitating continued trade. The unique artistic talents of the Athenians helped as they exported their famous "black-figure" vases with the black shapes standing out from an orange-red base². Meat was a rarity except at times of religious sacrifice. There were no palms in Greece, but figs were used, particularly dried, in winter.

A change in warfare technique early in this century was an important factor in changing social relationships in Greece. The horsemen of the battlefield, heretofore chiefly aristocrats because of the cost involved, were now being replaced by heavily armed and armored clusters of infantrymen called "hoplites" which were massed together, shields overlapping, in a "phalanx". The farmers were able to take over this role and the tendency toward the development of an aristocratic primacy was checked. Even then some social struggles developed. Peisistratus (560-527 B.C.) backed the cause of the poorer class of hill men against the aristocracy in one such uprising. It is possible that the psychology of the phalanx helped to promote the democratic ideal of all being equal, but contrary to what one might believe from perusing the classical school textbooks, Greek democracy was far from being total. Great

numbers of slaves, which we shall discuss more in detail later, lacked all political rights; women were also disfranchised; and resident aliens were admitted to citizenship only very rarely. Actually, throughout this 6th century Greece citizenry was pretty much a closed and hereditary group united by ties of kinship.

NOTE: Insert Maps taken from Reference 97 ANCIENT GREECE, CENTRAL GREECE

Aesop, of fable fame, lived in the first half of this century, born as a slave, physically malformed, rough, dogmatic but brilliant. He became the Greek ambassador to Lydia, but later, after challenging the integrity of the priests of Apollo, he was sentenced to die and was thrown from a cliff. Thales, after receiving part of his education in Egypt, founded the Ionian School of Natural Philosophy and set up the first system of abstract geometry and is said to have predicted the eclipse of the sun which occurred in 585 B.C. Coins of small denomination were introduced in Greece at this time. Toynbee (Ref. 10) says that 550 B.C. marks the end of the two hundred years of the acme of the Hellenic civilization, but in view of the developments in the latter part of this century and the next, many would disagree.

UPPER BALKANS

Early in the century the Scythians extended their power as far west as present day Hungary, but then they were decimated by a mysterious disease and they drew back to their homeland around the Black Sea. Herodotus mentions a disease of the Scythians which made them sterile, but it is not known if this was one and the same scourge which facilitated their defeat by Darius, when late in the century (513 B.C.) the Persians crossed the Hellespont, conquered the silver and gold rich land of Thrace, making a buffer zone against Greece. The remaining Scythians in the north fled, burning the land behind them. Thrace had been flourishing with an extensive trade and Greek styles and luxuries. Strangely enough, the Persian invasion only seems to have stimulated Thracian art. Macedonia continued its own more or less unmolested development. The Indo-European Illyrians had settled in present day Albania and their mines had attracted Greeks who settled near

them on the Adriatic coast. (Ref. [11](#), [12](#), [13](#))

ITALY

The region between Florence and Rome, now known as Tuscany, was populated by the prosperous Etruscans who capitalized on the rich copper and iron deposits of the area. They had twelve cities in Tuscany, additional settlements in the Po Valley and they controlled western Italy down to Cumae. In the north after 600 B.C. Bononia began to produce a great series of bronze buckets shaped like truncated cones and bearing figured reliefs. These have been found as far away as Austria and Slovenia and the Bononian ones may be copies of the latter. On the Adriatic Sea, in this century, several villages were brought together to form the port of Spina, not far from present day Venice. Spina was centered on a long, wide canal which connected the sea to a lagoon. The city covered over 700 acres, chiefly on peninsulae connected to the mainland only by narrow tongues of land. It was peopled by Etruscans and Greeks as well as the more native Venetii, and some of the latter apparently converted to the Etruscan language.

All of the western Etruscan city-states had their individual merchant navies which were active in the Tyrrhenian Sea, trading at the Greek and Cathaginian ports and their trader-pirates were active even in the Aegean, where they may have had a colony on the island of Lemnos. Many elements in their art and religion have been interpreted as Near East in origin, and as previously mentioned, traditionally it has been surmised that at least their rulers were immigrants from Asia Minor, Lydia in particular, but this has now been pretty well disproved. In 1964 there was excavated at Perigi, Italy, a letter written on sheets of gold leaf, in Etruscan, supposedly from Hiram, Lord of Tyre, to the king of Lavinia (near Rome) and Fell (Ref. [14](#)) interprets the language as belonging to the Anatolian group and related to Hittite and Urartian. This does not, in itself, prove Near East ancestry for the Etruscan people. (Ref. [15](#), [16](#))

Originally the people of Rome were ruled by Etruscan kings, who, in turn, appointed or nominated the senate from the patrician families. Throughout most of this century Rome was actually an Etruscan city, even though the common language there was an Indo European one, destined to become Latin. The draining of the marsh for erection of the Roman Forum by construction of the impressive

Cloaca Maxima was a typical Etruscan kind of operation. Etruscan metal-work, pottery and armour appeared in Rome, along with Etruscan immigrants. Terracotta friezes are identical in Rome and Veii and the great sculptor, Vulca of Veii, made the statue of Jupiter for a huge temple in Rome. The last of the Roman kings was an Etruscan and when he was overthrown the republic was established. After 510 B.C. the senators were appointed by two elected consuls. One of these, Valerius Poplicola, promoted the Lex Valeria, sometimes called the "Habeas Corpus" of Rome, allowing the plebians to appeal decisions of the magistrates to the general assembly, thus freeing them from the worst class vindictiveness. (Ref. 17, 18)

In the south, Pompeii was an important harbor for Nola and other Etruscan towns in Campania and fragments of their black pottery have been found there. Another Etruscan settlement was near Salerno. This Etruscan activity in Campania did not last long, however, as Etruscan Capua and Greek Cumae clashed violently about 525-524 B.C. when a force of Etruscans invaded the area in what has been called the "long march". Aristodemus, ruler of Cumae, repelled the invaders and later, with the help of adjacent Latin tribes, he further defeated the Etruscans near Aricia, between 506 and 504 B.C. (Ref. 19) In a Greek colony in southern Italy, Pythagoras established his brotherhood and incidentally developed his famous proof of $C^2 = A^2 + B^2$ in a triangle. The group placed such emphasis on the theory of numbers that ultimately it involved itself in a world of mystical, mathematical abstractions.

Sardinia and the western half of Sicily were conquered and occupied by Carthage in this century and of course there were multiple Greek colonies all along southern Italian coastal areas as well as on the southern and eastern coasts of Sicily. Somewhat replacing the Eubaeian influence in the Mediterranean, another Greek city-state, Phocaea, now sent its fleet west to establish trading colonies at Massalia and Alalia (now Aleria) on eastern Corsica. These Greeks were interested mainly in trade for metals, and Etruria was the final resource. The capture of the Phocaeian and other Ionian homelands by the Persians actually sent floods of Greek refugees to the west and thus Etruscan art of this period displays many Ionian characteristics. The southern parts of France, Italy, Greece and Turkey are today all very similar genetically in their populations, indicating the probable influence of this early

Greek colonization.

From about 540 B.C. onwards, the Caeritans, guided by Ionian artists who had flooded the area, developed an impressive new school of ceramics which, among other things, produced handsome water jars with rich polychrome paintings of Greek mythological scenes. The new wave of Phocaeans settlers who arrived at Alalia in mid-century extensively plundered the surrounding territories with a consequent reaction by Carthaginian and Caeritan navies. As noted earlier in this chapter when discussing Carthage, these allies were actually defeated by the Phocaeans, but the latter also lost 40 ships and soon took their families from Alalia to Rhegum, in southwest Italy. The unfortunate Phocaean sailors of the 40 captured ships were slaughtered on the adjacent shore by the Caeritans. (Ref. [20](#), [21](#))

NOTE: Insert Map taken from reference 97, GREEK AND CARTHAGINIAN COLONIZATION OF SICILY AND SOUTHERN ITALY

Vetulonia, to the north, seems to have reached the climax of its political power during this century as a walled city with a two mile perimeter. It had commercial relations across the Arno and Apennines and received amber from the Baltic. One of the Vetulonia dominated cities was Populonia on a peninsula projecting into the sea not far from Elba. It participated with the island in iron and copper works and eventually became the real smelting center, as the supply of wood fuel on Elba dwindled.

Still north of Vetulonia and bordering on the sea was Volaterrae, noted for its fabrication of bronzes and sculptures of volcanic stone. The central city was surrounded by a wall four and one-half miles long, and its area of influence extended over to present day Florence, where mound tombs have been excavated. Volaterrae's inland neighbor was Clusium, an area originally occupied by Italic speaking Umbrians, but which eventually became Etruscanized while yet remaining biracial. King Lars Porsenna of Clusium was considered the most powerful Etruscan of all time, and his tomb has been described as a magnificent edifice, 300 feet square. The primary products of this inland community were agricultural, even though vast irrigation and drainage projects were necessary to limit

flood waters. (Ref. [22](#))

CENTRAL EUROPE

In this century there was a continuing proliferation of the Hallstatt Celtic people throughout central Europe with a thin fringe of Teutons in the north. The Scythian nomads invaded, particularly in the great Hungarian plain, and greatly influenced Celtic art and society in general. From them may have come the war-horse with the bronze bits and harnesses and the head-hunting custom, all of which were later considered a part of the Celtic tradition. Bronze Age Indo-Europeans, Scythians and Greek concepts apparently all coalesced into the new Celtic pattern, with a center at Heuneburg, on the German Danube. (Ref. [23](#), [24](#))

WESTERN EUROPE

By 500 B.C. the influx of Celts into southwestern Spain (Andalusia) was so great that the local spoken language changed from Phoenician to Celtic, but even so the Tartessian culture persisted with Carthaginians taking over the old Phoenician settlements. The Phocaean colony of Massilia was founded on the Mediterranean coast of France in 600 B.C. and it allowed commercial relations between the Celts and the Mediterranean cultures. Vinyards may have been planted on French soil about this time, after the Greeks started importing their own wine into the Marseilles area. All the Atlantic coast and Britain continued under Celtic domination. (Ref. [25](#), [26](#), [27](#))

SCANDINAVIA

Although in this century iron was used exclusively for farming and war, the Scandinavian tribes continued to make bronze implements, bibelots and costume jewelry of great excellence and intricacy. The populations were increasing rapidly and people were already beginning to migrate to the European continent, proper. The Finnish people continued to live in widely spread villages throughout the northern regions from northern Scandinavia to and perhaps beyond the Ural Mountains. (Ref. [28](#))

EASTERN EUROPE

Finns and Lapps lived throughout the northern areas of Russia while Balts inhabited the southern coast of the Baltic Sea and on east to the Don River. South of the Balts were the early Slavs, and now through this area the Scandinavians pushed up the Vistula River as far as the Carpathians. In southern Russia the Scythians were decimated by a mysterious disease, although Darius' invasion may have had something to do with it also. In the spring of 514 B.C. Darius of Persia crossed the Bosphorus with a vast army and moved through Thrace into Scythia, but his 700,000 men were very nearly consumed by the Scythians' military wizardry as they retreated using a "scorched earth" policy, so that Darius finally had to withdraw the remnants of his starving army. (Ref. 29)

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1. "A tyrant was a man who gained power through coup d'etat and ruled extra-legally." (Ref. 8) page 202
2. In 1970 a list showed that 1,560 of these vases had been found in Etruria, Italy, and many more have been found since then. (Ref. 9)

Europe: 500 to 401 B.C.

EUROPE

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

With the ultimate Greek victory over the Persians, many Mediterranean islands, including Rhodes and the Cyclades, now became dependents of Athens. Even the Etruscan held island of Lemnos fell to Athenian control in that period. At the end of the century, however, Rhodes pulled away, forming its own confederacy of three city-states. (Ref. 1)

GREECE (THE 2ND CENTER OF CIVILIZATION)

In the first half of the century the city-states of Greece were occupied with continuous warfare with Persia with the first Persian attack coming in 490 B.C. by sea. In 480 B.C. there was the great battle of Thermophylae and a concurrent sea battle at Salamis in which Xerxes was defeated. Between 478 and 477 Athens organized the Delian League as a defense against future imperialism, with members being the Aegean coast and island allies, with headquarters at Delos, but with Athens as the leader. These Athenian imperialistic policies were engineered by Cimon, aristocratic successor of Themistocles. The Persian wars ended about 449 B.C. as the Persian Empire deteriorated and most of the Greek cities, even those on the coast of Asia Minor and the Black Sea, became free.

The key to Athens' extraordinary accomplishments in the first half of this century lay in her fleet, which maintained control of the Aegean and allowed goods from the eastern Mediterranean to enter through the port of Piraeus. The fleet thus not only carried the war

across the Aegean to help liberate the Greek cities there, but also allowed foreign contact, thus bringing new ideas and concepts, all of which set the stage for cultural creativity. In this context we must not forget that behind all the shipping and trade was the necessity for Greece to import food. The life-line demanded grain, even though this 5th century B.C. did see the use of the domestic hen in almost every Athenian household and Greece now became the home of fine wines. Alfalfa was introduced by the Persians and subsequently the Greeks used this as horse fodder. (Ref. 2, 3)

Some modern writers have a tendency to idealize Greek life of this century and underplay some of the less tasteful aspects of that civilization. In all Greek states abortion or abandonment of children was permitted. Sparta arranged to prevent parents from knowing which were their own children and vice versa, while the state decided whether or not any child would be permitted to live. Homosexuality was widespread and publicly accepted. Athens had between 75,000 and 150,000 slaves representing some 25 to 35% of the population. (Ref. 4, 5) Finley (Ref. 6) says that this number is purely a guess, and that while the exact number of slaves is unknown, the important fact is that this was a slave society. Urbanism and the great increase in wealth initiated capitalism and with the extension of full rights to the lower classes, free hired labor could not meet the needs of the capitalists who, taking advantage of the almost continuous wars, turned to ever larger scale slave labor.

As in Phoenicia, some Greek ports constructed in that time of low sea levels in the Mediterranean are today below sea level. Medicine of that period in Greece was a mixture of religious mysticism with some rational thought and procedures. Asclepius was worshipped as the God of Healing and temples were erected for him for that purpose over many centuries and were in present day terminology mixtures of religious shrines and health spas. Alcaeon, possibly of this century, wrote a book Concerning Nature, which may be the beginning of Greek medical literature, although only a few fragments survive. He established a connection between the sensory organs and the brain, described the optic nerves and concluded that the brain was the organ of the mind, therefore also responsible for thought and memory. A century later Aristotle thought erroneously that the heart was the center of sensation. (Ref. 7, 8, 9, 10)

NOTE: Insert Map: GREECE DURING THE PERSIAN WARS

The period 475 - 429 B.C. has been called the "Golden Age of Pericles", the greatest ruler of Athens. In view of the thousands of pages that have been written concerning ancient Greece, it is sometimes difficult to keep things in proper perspective. Attica was actually a small area, with Sunium, the most distant point from Athens, being only forty miles away (although admittedly this was a long walk, with only feet for transportation). It was, however, a period of literature, plastic arts and the development of the foundations of science. This was the time of Socrates, for whom philosophy was neither theology nor metaphysics but ethics and politics with logic an introduction and a means. (Ref. [11](#)) It was the time of the historian Herodotus (born about 484 B.C.) and in Ionia the time of the great physician Hippocrates who fostered the scientific approach to the treatment of disease as opposed to the priests' explanation that disease was the result of anger of the gods. He was born on the island of Cos in 460 B.C. and became known eventually as the "Father of Medicine". Protagoras (480 - 410 B.C.) was the chief proponent of the Sophists, who taught the virtue of proper use of words and a method of verbal reasoning according to rules of argument whereby a man might hope to unravel all the mysteries of the universe. Their doctrines, including one that stated that the law was a conspiracy of the weak against the strong, provided the oligarchy with justification for violence and chicanery used to overthrow the democracy eventually (414 - 411 B.C.) Other philosophies included that of the Cynics who cared only for virtue and relation of the soul to God with the world and its learnings amounting to nothing; and the Stoics and Epicureans, using logic and rhetoric toward a similar goal. Parmenides and Zeno, of the famous paradoxes, were Eleatics. (Ref. [12](#), [13](#))

This great age of Greece ended with the Peloponnesian War - a war of Sparta and her allies against Athens and hers, which raged for thirty years beginning in 431 B.C. and which wasted all the power of Greece. Forty years of aggressive Athenian imperialism and land grabbing activities had forced most mainland cities to look to Sparta for leadership. Athens had control of the seas but commanded few mainland areas outside of Attica, and it was obvious from the beginning that neither side could win. Then in

430 and 429 B.C. a pestilence, which may have been a malignant form of scarlet fever¹, killed off 25% of the Athenian land army. Thucydides said the infection had begun in Ethiopia, run into Egypt and Libya and most of Persia, then through Piraeus to Athens, itself. The latter never fully recovered and lost the war to Sparta. A peace which was supposed to last fifty years was declared in 421 B.C. but Athens resumed expansionist ambitions, this time with cruelty and slaughter in conquered islands. In reaction, the Persians financed a new Spartan navy commanded by Lysander and he completely defeated the Athenian fleet at a great battle at Aegospotami off the Hellespont in 405 B.C. The end came for Athens when Lysander then cut off the grain supply line and laid siege to the city itself in 404 B.C.. The final slaughter of the inhabitants matched the previous plague of 430 - 429. Plato, a pupil of Socrates, grew up in the atmosphere of this exhausting war. (Ref. [14](#), [15](#), [16](#))

NOTE: Insert 21: GREECE DURING THE PELOPONNESIAN WAR

UPPER BALKANS

There was culture in Thrace and in the Greek colonies along the coast of the Black Sea. Many cities had developed in Macedonia and by 450 B.C., under the reign of Alexander I, a veneer of Hellenic civilization had appeared on the ruling classes of this area. (Ref. [18](#))

ITALY

Italy at this time was a motley of independent tribes and towns. There was still a northern Etruscan presence near the Po River, with various cities there. Virgil, the Roman poet of part Etruscan origin, describes his home of Mantua as composed of three races which apparently included Etruscans, Venetians and Umbrians, the latter two being Indo-European Italic speakers.

In Etruria, itself, in addition to Tarquinii and Caere, which we discussed at some length in the last chapters, we should now discuss Vulci, the city-state just north of Tarquinii.

In this 5th century B.C. it showed a marked Athenian influence, with the Athenian "black-figure" pottery flooding the community. No less than 40% of all Attic pottery that has been excavated in

Etruria is from Vulci. But this city's real claim to fame was its bronze-work, with multiple cast bronze statues which were in turn exported afar, including back to Greece. It is possible that Servius Tullius who ruled as King of Rome after Tarquinius Priscus, was a Vulcentine with the original name of Mastarna. (Ref. 19) Early in the century the Etruscans, at the height of their power and allied with the Carthaginians, were at war with the Sicilian Greeks of Syracuse and their King Hiero 1. (Please see also 1, B, this chapter), and in a great naval battle off Cumae about 474 B.C. the Etruscan navy was destroyed. They were then forced to withdraw from Campania and this secured the liberation of Rome from Etruscan control. Even then, Cumae and Capua alike were still subjected to several years (430 - 423 B.C.) of fighting some hard-nosed mountain, Italic-speaking tribes, the Samnites. It was the descendants of the latter who eventually forged a new Campanian nation. In addition to the resistance of the Campanian Greeks the city-state of Caere was further damaged by an attack by sixty Syracusan warships which plundered harbors on the mainland and overran Elba and Corsica. (Ref. 20)

Up to this point Rome had actually only controlled an area of about nineteen by nineteen miles, but they soon defeated the Sabines and expanded into their area. In spite of the smallness of Rome, this was the period of the Roman Republic. At the beginning (494 B.C.) there was the first "secession" in which the plebes withdrew from Rome to form their own city, forcing concessions from the patricians such as the right to have officers of their own, tribunes and aediles. In the Republic there were four classes of citizens; the Patricians, consisting of the superior clans which supplied Rome with generals, consuls and laws for five centuries (the Manti, Valerii, Aemili, Corneli, Fabii, Horatii, Claudii and Julii); the Equites, or business men; the Plebs, or commons; and finally the Slaves. The Roman Senate consisted of 300 members made up of clan heads from three basic tribes, although occasionally an Equite got into that body. As a result of a political battle for better laws for the Plebs, a commission was sent to Greece to study the legislations of Solon and other lawmakers and on their return, ten men (decemviri) formed a new code call "the Twelve Tables" which were approved by the Assembly and became the first written form of a legal structure of Rome (450 B.C.), serving as the basic law for the next 900 years. In 443 B.C. appeared the

institution of censorship and in 432 the first law designed to check electoral corruption was passed. At the end of the century the long war of Rome against the Etruscan city, Veii in Tuscany was started. At the same time the Gauls descended again from the north and the Etruscans were squeezed in the middle. (Ref. 21)

Pei (Ref. 22) states that at 500 B.C. the Latin language was a rough, elemental tongue, lacking most of the refinement of syntax and vocabulary to come later.

The Greek Syracusans were busy through most of this century fighting and defending their possessions. In the battle of Himera on the north Sicilian shore in 480 B.C. they defeated the Carthaginians and then were able to dominate the western Mediterranean. We have noted above how they subsequently defeated the Etruscan navy. In 414 B.C. the Athenians besieged Syracuse, but they too were defeated, their fleet destroyed and the survivors were taken as quarry slaves.

The Greek Empedocles, living in Sicily, developed a theory of the movement of blood to and from the heart, and performed various medical "miracles". He is said to have raised a woman from the dead. Later, Galen was to call him the Father of Italian medicine. (Ref. 23)

CENTRAL EUROPE

By 500 B.C. the greater part of the northern European coast was Germanic. The first, or Germanic, sound shift in the Aryan tongue created a dividing line between the Germanic and other Indo-European languages. Farther south the Germanic groups were still checked by Celts. From 500 or 450 B.C. onward is the age of the La Tene Celtic Culture, named after excavation sites in the region of Lake Neuchatel in Switzerland.

Corresponding to the Golden Age of Greece, there was a wave of Celtic expansion, with battles against the cities of the classical world. They used two-wheeled chariots as cavalry in tactical units of three and tribal foot soldiers armed with spears, slings and tall wooden shields decorated with metal bosses, but there were no bows and arrows. The Switzerland Celts extracted tolls as they controlled the head of the Seine navigation on the tin route from Britain to the bronze workshops of Italy. At that time the Rhineland had already become important in iron ingot production. A reverse

flow of Etruscan bronzes went back up the river route and those art objects found in Germany, as well as in Belgium and Luxemburg, had definite influence on Celtic art. (Ref. [24](#), [25](#), [26](#), [27](#))

Recent excavations at Hochdorf (near Stuttgart) in southwestern Germany indicate that the Celts of south Germany had a stratified society with an aristocratic class that lived in hilltop fortresses. The wealth of that class was based on trade links with Greek colonies in Italy and southern France and with the Etruscans. The large tombs of the aristocrats were sometimes one hundred meters in diameter and held Mediterranean drinking vessels, furniture and other household luxuries. The average life span at that time was about thirty years. The Hallstatt culture existed in two great regions, one in the west with clear Celtic features and an eastern one in Carinthia, the north Adriatic and Yugoslavia, which included the Illyrians and the Veneti.

WESTERN EUROPE

On the east coast of Spain and at Massilia on the Mediterranean coast of France there were Greek colonies, but otherwise all France and the Atlantic coast was Gaulic (Celtic). These people also overran the basic population of Ireland, bringing iron to that land as well as to Britain, where its use rapidly outstripped bronze after 450 B.C. The Celts who arrived in Britain in this era were Brythonians, or P-Celtic speakers, from the early La Tene Culture on the continent. (Ref. [28](#), [29](#))

On the North Sea between the Somme and Aller rivers, including present day Holland, northeastern France, northwestern Germany and most of Denmark is an area where place- names still show remnants of a language neither Celtic nor German. The Celts never got this far north and the Germans for a long time were west of the Aller. A prehistoric people were apparently squeezed between the Celts and the Germans in that location. (Ref. [30](#))

SCANDINAVIA

In this century there was a true Iron Age in Scandinavia and a period of continued proliferation of Germanic tribes, some of which were spilling over into Europe proper.

EASTERN EUROPE

The Finns and the Balts occupied the same respective territories as in the preceding century. In the Slav zone of Poland a new fashion of decorating urns with faces replaced the old Lausitz style. This change appears to have spread southeastward from the Baltic. Areas of quite advanced civilization existed in the Greek colonies on the Black Sea and at the Persian borders near the Caspian.

On the Russian steppe the Iranian tribes between the Don and the Aral Sea became known as the Sarmatians while those farther west were Scythians, now becoming farmers. Southern Russia was both cooler and more moist than earlier or than now and instead of the previously existing steppe country, by 500 B.C. wooded or partly wooded country extended from Romania east for one thousand miles to the Don River. This tended to restrict nomadic foraging and raiding. It was in this century that Herodotus, the Greek historian, visited Albia on the north shore of the Black Sea and wrote of the Scythians. (Ref. 31) He mentioned that some of the Scythians grew grain, not for their own use, but for sale chiefly to the Greeks. East of these farmers were the largest and bravest of the Scythian tribes, reaching as far east as the Don. They used large cow stomachs to hold thirty to forty gallons of water. It is said that the natives of the Caucasus Mountains were still practicing cannibalism at this time. (Ref. 32)(Ref. 33) (Ref. 34)(Ref. 35)(Ref. 36)

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1. An unsupported statement of Trager. (Ref. 17, page 17)

NOTE: Insert 21: GREECE DURING THE PELOPONNESIAN WAR

Europe: 400 to 301 B.C.

Europe

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

In the last third of this century, all these islands were conquered by the men of Alexander the Great, but his control was short-lived. By 323 B.C. Rhodes was independent again and Cyprus belonged to Egypt until Demetrius Poliocertes, aspirant to the throne of Macedon, took Cyprus again. Then in 307 he besieged Rhodes, using 30,000 men to build siege towers and engines, but all of this failed. (Ref. [1](#), [2](#))

GREECE

Throughout the peninsula there was endless conflict between the slaves and the ruined proletarian masses who demanded that the state support them. Up until about 378 B.C. the police force of Athens consisted of about 300 state-owned Scythian slaves. At the beginning of the century Sparta, having won the Peloponnesian War with the help of subsidies from Persia, dominated southern Greece; then, by forming an "Arcadian League", Thebes took over control from about 370 to 360 B.C.; then Athens, with growing specialization of professional soldiers and generals, professional orators and financial experts became supreme for awhile. But in the last part of the century the unity which the Greeks could not find among themselves was forced on them by Philip of Macedon. The battle of Chaeronea (338 B.C.) was the end of Greek liberty and the beginning, in some sense, of Greek unity. (Ref. [3](#), [4](#))

In spite of the wars this was one of the great eras of culture. Plato lived until well into this century and the political problems

always remained a central issue for him and he became a frustrated politician. The mainly hereditary tripartite class division of the "Republic" corresponded closely to the divisions of 6th century B.C. Greek society, with an aristocracy that guided the state, citizens who fought for the polis and slaves and foreigners who labored. Plato brought together diverse intellectual strands from different parts of the Greek world and he did so with a consummate artistry that few have even equaled, giving to subsequent Greek and European philosophy its central themes and problems, as well as much of its working vocabulary. It is not generally realized that Plato also wrote medical speculations, logical but without any direct experimentation and leading to many faulty conclusions about the human body, errors that persisted well into later centuries and were difficult to eradicate. (Ref. 5, 6)

Near the end of the century Aristotle, a pupil of Plato, returned from his travels with Alexander to found the Peripatetic School or Lyceum. Scientific material of all kinds had come to him through the Greek-Macedonian armies' conquests (Please see next section UPPER BALKANS) and his work became the basis of knowledge even 1,500 years later in the Middle Ages of Europe. Aristotle pioneered in biology, embryology and physiology and was a champion of inductive reasoning. Three great structural ideas appeared in this era which rule the mind of contemporary mankind today: (1) Science, in the broad sense, including history and relation of man to the total environment; (2) the idea of one universal God of righteousness; and (3) the concept of world policy.

Theophrastus followed Aristotle as head of the Lyceum and established the basic concepts of botanical science, collecting data from as far as India. Democritus, early in the century, had described the universe as being composed of atoms (indivisible particles incapable of destruction) and a vacuum. This theory was rejected by Aristotle but was to be emphasized again in the 1st century B.C. by Lucretium.

Hippocrates also lived well into this century. He described a mumps epidemic and some three and four day fevers which may have been tertian and quartan malaria. Other diseases described suggest diphtheria and either tuberculosis or influenza. Nothing was mentioned that suggested small-pox, measles or plague at that time. Whether all the teachings that we have come to accept as

Hippocratic writings are actually the work of one man, or many, is not known. There were simultaneously great medical centers on Cos and on the Asia Minor mainland at Cnidos and the final collections of "Hippocratic" writings at the great library at Alexandria in the last part of this century may have actually been contributions from many Greek physicians. Injuries to bone and joints made up a large part of medical practice and manipulations to reduce fractures and dislocations were sophisticated and sometimes associated with very complex bandaging and mechanical devices. The cautery was used and there was extensive use of minor surgical procedures for tumors, fistulas, ulcers and hemorrhoids. The juice of the opium poppy and of the mandragora¹ was available for anesthesia and pain relief . Books numbering seventy-two and treatises at about fifty-nine have been credited to Hippocrates. Case histories of some diseases are superb, but the anatomy, physiology and therapy, of course, was of ten poor and the specific diagnosis of any disease was seldom given. The ethics, conduct and appearance of the physician was emphasized. (Ref. 7,8, 9)

Of incidental interest is the fact that it was not until this century that the new raised wheat bread from Egypt became popular in Greece. (Ref. 10) The last third of the century saw the affairs of Greece subjected to the domination of their Macedonian neighbors - originally enemies and then allies. This situation will be discussed at greater length in the next section.

UPPER BALKANS

The Macedonians, occupying most of the area we know as Yugoslavia and Bulgaria, were kin to the Greeks and their language was almost Greek, but they were more purely Nordic than any people to the south and their appearances and customs were similar to the wild Celts of the period. Philip II, who became Macedonian king in 359 B.C. by simply seizing the throne after he had been appointed regent for his nephew, was a leader-king of the ancient Nordic-Aryan type. Having previously been held hostage for a short time in Thebes, he had gained much knowledge of the Greeks and he immediately developed an army trained in the effective Theban phalanx formation and proceeded to enlarge his kingdom to the north by subduing the Thracians with their gold mines of Mount Pangaion and then east and south to the upper part of the Aegean Sea. In spite of drunkenness and other personal vices, he was

probably the best educated man of his time and with his son's tutor, Aristotle; it was he who planned most of the greatness that his son Alexander achieved. After he gained an Aegean coastline and the Thracian gold he soon conquered the coastline of Thessaly. Although there was much bickering and changes of alliances in Greece the main obstacle to Philip's control of the entire peninsula was always Athens, where Demosthenes constantly used his oratorical abilities to denounce him. His troops finally defeated an Athenian coalition, however, in 338 B.C. at Chaeronea in Boeotia. Subsequently, at a congress of Greek states Philip was elected, or at least recognized, as Captain-General of all the Greeks for an all-out war against the old enemy, Persia. Thus Macedonia rose to political importance by assimilating aspects of Hellenism. (Ref. [11](#), [12](#), [13](#))

Actually the great battle with Persia was not enjoined until after Philip's assassination and Alexander's coronation as king. Within a few years Alexander had conquered all western Asia and a part of India and Egypt, carving out an empire 3,000 miles wide and in most regions up to 1,000 miles from north to south, thus approaching the size of the United States. As accompanying maps will show, the boundaries were almost identical with the previously existing Persian Empire. All of this was conquered within about twelve years without motorized vehicles and only about 35,000 men including some 5,000 mercenaries. He initiated the use of a torsion catapult to shoot arrows and stones, beginning a whole new era in siege warfare. (Ref. [14](#), [15](#)) At least thousands and perhaps hundreds of thousands of Greeks followed in Alexander's footsteps, emigrating to the East and giving a deep Hellenic imprint over and above the purely military conquest. Alexander died in 323 B.C. at the age of thirty-three years, a man of tremendous vanity, at times kind and considerate and at other times vicious, cruel and destructive. He died in Mesopotamia, possibly of malaria. (Ref. [16](#))

Alexander set up no competent administrations in the various conquered areas and after his death the empire rapidly collapsed, with division of the territory among the various Greek generals. Initially the divisions were as follows:

1. General Seleucus controlled the Asian part of the old Persian Empire and the south half of Asia Minor except the coast, clear across southwest Asia to the Indus
2. General Antigonus kept Macedonia itself, but by 301 B.C. he

was killed in battle and his son Demetrius I was defeated as Lysimachus took the area of Thrace and Cassander took Macedonia and Greece

3. General Ptolemy took Egypt, along with most of the coast of the eastern Mediterranean, including Judea and the old Phoenicia and the coast of Asia Minor

NOTE: Insert Map 22. THE EMPIRE OF ALEXANDER THE GREAT

ITALY

In 400 B.C. the Gauls plundered Etruria in northern Italy, conquering Felsina, which subsequently became known as Bononia. Ten years later, under King Brennus, they sacked Rome itself and retreated only after the payment of 1,000 pounds of gold. Thus began the long Roman-Gallic wars which did not end until the time of Julius Caesar in the 1st century of the Christian era. In spite of the Gauls, Perusia, which had broken free from Clusium, was the most powerful Etruscan center in the upper Tiber Valley. The Clusines spread their alphabet up the Adriatic coast to Venetia and the northeast and it became the basis of the alphabets of Venetia, Illyria and Raetia as well as of the German and Scandinavian runes. Meanwhile the Romans also had to continue to fight the Etruscan city-state of Veii, destroying it about 396 B.C. and then take on the powerful and highly civilized Samnite tribes of southern Italy. The only Etrurian power left in the immediate vicinity of Rome was Tarquinii and a seven year war flared up with it in 358 B.C. In 343 B.C. the Greek cities in Campania (Naples area) joined the Samnites in their campaign against Rome, but in spite of all this warfare some advancement of civilization did occur in Rome. The Compromise of Camillus in 367 B.C. gave concessions to the Plebes and internal dissension stopped, leaving energies free for expansion. The Appian Way was started at this time. While the Etruscan towns had always remained small, chiefly in the 5,000 to 10,000 bracket, early in this century Rome probably passed the 10,000 mark and drew level with Tarentum, the largest Greek city in Italy. (Ref. [17](#), [18](#), [19](#))

Although after the destruction of Veii by the Romans the Etruscan preponderance in central Italy came to an end, some

Etruscan cities still flourished. Vulci had failed to help Veii in its death struggle and continued to exist as a thriving city. After a forty year truce, fighting again flared up between Rome and Tarquinii with the former the final victor in 314 B.C. At long last Caere had finally broken with Rome and had joined Tarquinii in its last days. Its independence gone, Caere still was a great cosmopolitan city to which Roman sons were sent to learn the Etruscan language and literature. (Ref. 20)

In the last of the century the Gauls actually settled down in northern Italy (Cisalpine Gaul) laying the foundations for the cities of Turin, Bergamo and Milan. The Kyllirioi disappeared from Sicily in the early century and slavery became the only form of involuntary labor and this remained so after the island was conquered by the Romans. (Ref. 21) (For more about Sicily, see NORTH CENTRAL AFRICA).

CENTRAL EUROPE

The population of this region was essentially Celtic, particularly in Austria and Germany, although some Germanic tribes were wandering down from Scandinavia about the Vistula River and these may have been pushed somewhat west at this time by Huns leaving the region of the Volga. McEvedy (Ref. 22) writes that there were still no Teutons south of the latitude of Berlin and that this was to remain so for two more centuries. East of the Germanic tribes were the Balts and the Slavs.

The Hallstatt Celtic culture in Austria was based on salt which was mined particularly at Salzburg and at Durnnberg near Hallein. In Bohemia tin became an important export. The newer La Tene Culture evolved full flower in the old Celtic homelands, marking the second phase of the P-Celtic speakers' expansion. They developed an original art, part of which involved covering tiny surfaces of pots, sword sheaths and ornaments with mazes of lines, tiny animal figures and faces, all cut in minute detail. They manufactured brass and covered copper objects with tin and silvered them over with mercury.

In their first contacts with the Mediterranean world the Celtic people struck terror throughout the existing civilizations. They were tall, blond, with hair standing up stiff from their foreheads from lime washings, and then hanging long behind like horses' manes.

They wore long mustaches and dressed in brightly colored shirts and breeches with cloaks fastened at the shoulder with brooches. The cloaks were striped or checkered. Some wore bronze helmets and chain breast armor, although others went naked into battle where they charged with wild screaming and singing, some on foot and some in four-wheeled chariots drawn by two horses and carrying one driver and one javelin thrower. Cavalry operated in the same way, each mount with two riders. But the most terrifying of all was their custom of cutting off their enemies' heads and nailing them over the doors of their huts.

In general the Celts preferred to remain potentially mobile and kept their possessions all in a state of readiness for travel, but in some locations they did build rather impressive settlements. One such was near Manching, Bavaria, where the outer wall was four miles long, enclosing an area of some forty thousand acres. There is evidence of goldsmiths, bronze foundries, iron and glass works, potteries and trading houses. Not far away was a foundry where sixty-two smelt furnaces have been excavated. Every Celtic town had small foundries and most had salt sources nearby. (Ref. [23](#))

WESTERN EUROPE

The La Tene Celts were at their peak of power throughout France (Gaul), England, Wales, Scotland and Ireland. In Spain there were also Celts, but Carthage had established a protectorate over all the Iberian tribes up as far as the Pyrenees. An interesting side-light on the nature of the early Iberian language is offered by Barry Fell. (Ref. [24](#)) We have generally been told that the early language of the Mediterranean world was unique and that perhaps remnants today are to be found in Basque and tongues of the Caucasus. Fell says that a recent study would indicate that the old Iberic language was Semitic and closely related to classical Arabic. A recently found stone inscription from eastern Spain at Pujol was in the ancient Iberian letters but was Greek in language. This probably dates to about 300 B.C. when Carthage still dominated Mediterranean shipping.

The entire British Isles, called "Pretanic Islands of Albion and Ierne" were circumnavigated by Pytheas of Marseilles, but his story was not believed at that time. His journey had been made possible by the opening of the Straits of Gibraltar as the entire Carthaginian

navy had been withdrawn to attack Sicily. As a result of the astronomical observations made by Pytheas on that trip to Britain, he began to get the first hint of the curvature of the earth, and he incidentally located the Cornish tin mines. London may have had its origin about 400 B.C. when a Celtic king, Belin, rebuilt an earth wall around a few dozen huts where the Walbrook joins the Thames and then cut an opening in the south wall for a landing spot. (Ref. 25) That Carthaginians were also in Britain in this century is attested by the finding of Carthaginian coins in two primary areas, dating to this period.

This is probably the time when the Picts either invaded Scotland or made themselves known as an aboriginal people. Their real origin is unknown, although the most recent thought is that they may have migrated from the north of the continent. In later times they spoke P-Celtic, but this may have been acquired from a wave of Celts and probably does not represent their native tongue. The Romans named them "Picts", meaning "painted ones". (Ref. 26, 27, 28)

SCANDINAVIA

A period of continued multiplication of the Germanic tribes.

EASTERN EUROPE

The basic populations of this region showed no basic change from the previous century. From the north down there were Finns, Balts, Slavs and finally the Scythians just north of the Black Sea. The uncertain history and legends of the Scythians were clarified, in part at least, by excavations of burial mounds in the 18th century C.E., with recovery of some twenty exquisitely carved gold objects found in a mine shaft and given to Czar Peter of Russia. The archeologists found subsequently that Herodotus' descriptions of royal funerals was accurate, in that concubine, butler, cook, groom and stewards, all strangled, were buried with the royal personage. In addition gold cups, large collars made of twisted metal and other treasures, were included. It is apparent that gold was a sacred part of Scythian life, the metal coming from the Caucasus, Ural and distant Ural mountain ranges. We have then, an ancient barbarous, bloody people who at the same time were creative artists, working

in gold. About 350 B.C. a still stronger, crueler, but related people, the Sauromatae, began crossing the Don, scattering the Scythians before them. Some of the latter went to Thrace (Romania) and some stayed in the Crimea, with a capital at Neapolis. If we are to believe Herodotus, writing a century earlier, the Sauromatae spoke a language similar to Scythian because some Amazon women had, in effect, seduced some Sythian boys and taken them back to their home across the Don. It was perhaps these women who allegedly rode and fought alongside their men, giving rise to the legend that Scythian women were warriors. Herodotus writes that no Sauromatae Amazon could marry until she had killed a man in battle. (Ref. [29](#), [30](#), [31](#))

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1. This is hyoscyamus (also scopolamine), an ingredient of "twilight sleep"

Europe: 300 to 201 B.C.

EUROPE

At 300 B.C. there were Celts in every part of Europe excepting Scandinavia, the southern portions of Italy and Greece and Russia. Most of the European river names such as the Rhine, Main (Moin), Neckar, Lahn, Ruhr, Isar, etc. are Celtic in origin. If the various Celtic tribes could have gotten along together and made a concerted effort they could have created one of the greatest empires in European history, but they didn't. (Ref. [1](#))

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

Crete had become a haven for Mediterranean pirates. The Cyclades were under Greek control. South of Asia Minor Rhodes had become a powerful commercial state. The "Colossus of Rhodes" was completed in 280 B.C. by the sculptor, Chares, after twelve years of work with the spoils left by Demetrius' unsuccessful siege in the previous century. Rising 120 feet, this bronze statue of the sun god was so large that a ship could pass between its legs. (Ref. [2](#), [3](#))

GREECE

This was a time of considerable chaos and confusion in the Greek peninsula. The Galatian Celts in about 280 B.C. raided from high up in the Balkans down through Macedonia and into Greece proper and were defeated only with great difficulty. The Celtic army probably had no more than 30,000 men and was led by Brennus, of the same name as the chieftain who had sacked Rome over a century before. Greece was divided among the Aetolian League, which expanded in the north central and western area by force, the

Achaean League, which expanded by contract and the independent states of Sparta and Athens. The former was defeated in 222 B.C. by a coalition of Achaeans with the Macedonian King Antigonus Doson.

Although there was a shift of Greek science and medicine to Alexandria, philosophy was still prevalent in the homeland. Epicurus founded Epicureanism, a belief that pleasure is the chief good, but that the greatest pleasure may be obtained through a life of temperance and simplicity. The great evil that afflicts man is fear of gods and fear of death. The ultimate aim of all Epicurean theories and teaching was to rid humanity of these two fears. (Ref. 4, 5)

UPPER BALKANS

When the Macedonian leader, Cassander, died in 297 B.C., Demetrius I (Polioctes) returned again to try for the king-ship. He did take Athens in 295 B.C. but was eventually deserted by his own troops and became a prisoner of Seleucus for the rest of his life. (Ref. 6) Celtic peoples were collecting in the upper Balkan area, fighting among themselves and periodically raiding southward, shattering all balance of power in Alexander's old empire and the first divisions among his generals and their immediate successors.

The Macedonians, themselves, were completely overrun for a short while. At the end of the century as Hannibal gave Rome its most terrible war, Philip of Macedon sided with Hannibal and the skirmishes of Macedonian soldiers with Romans in this issue of the main war was called the First Macedonian War.

An Illyrian kingdom was set up at this period with a capital at Scodra (modern Scutari, Albania) but because of Illyrian piracy tendencies the Romans had cause to war also against them and ultimately defeat them. South and west of Macedonia, the small but strong kingdom of Epirus flourished and even attacked Italy across the Adriatic Sea at the instigation of the local Greek city-states. (Ref.7)

ITALY

This was a century of great Roman activity. By 290 B.C. all territory of the Sabines had come under Roman rule, and after the battle of Lake Vadimo about 280 B.C. the Samnite resistance was crushed and Rome controlled all the harbors of Italy as well as having perhaps 40,000 slave-captives. In 281 B.C. a Roman general had

also triumphed over Etruscan Volsinii and Vulci. Italy was densely populated by a hardy peasantry, which gave the Romans a dependable pool of military man-power. Their labor force, like the Greeks before them, was slaves. Rome, too, was a slave society. (Ref. 8)

NOTE: Insert 23: ITALY BEFORE THE FIRST PUNIC WAR 264 B.C.

In the meantime, Pyrrhus, king of Epirus in the Balkans, and a kinsman of Alexander the Great, responded to pleas of the Greek city-states of Syracuse (Sicily) and Tarentum on the heel of the boot and helped them fight the Romans for control of south Italy. Rome was even joined by Carthage in this particular fight, in the attempt to keep Pyrrhus out of Sicily. King Pyrrhus brought 25,000 men and many elephants which terrified the Italians and he initially won some victories at Heraclea (280 B.C.) and Asculum (279 B.C.) but lost many men and much strength, so that by 275 Rome had won and had reached the toe and heel of the boot of Italy. Carthage still held the western end of Sicily. (Ref. 9, 10)

By 260 B.C. Rome controlled 10,000 square miles of Italy, and with her allies another 52,000 square miles. It had about 292,000 men and its allies about 750,000, with a total population of about 3,000,000. This powerful confederacy had now become a potential challenge to Carthage and war between the two great powers broke out in 264 B.C. This First Punic War began a century of warfare for the mastery of the Mediterranean. With Hamilcar (see footnote on page 243) leading the Carthaginians and Regulus becoming the Roman hero, this was essentially a series of gigantic sea battles with a few land skirmishes in Sicily and the southern tip of Italy. The Romans won the sea battles by the "corvus", a boarding crane that allowed their soldiers to board the Carthaginian ships. (See NORTH CENTRAL AFRICA, earlier in this chapter, page 233). Carthage sued for peace in 241 B.C., giving Sicily to Rome and removing restrictions on Roman trade in the Mediterranean. In the next four years, while Carthage was torn by a bloody internal revolution, Rome took Sardinia and Corsica in treaty violations. (Ref. 11, 12)

These treaty violations set the stage for the Second Punic War beginning in 219 B.C. and continuing until 201. The Carthaginian

General Hannibal (See footnote on page 243) entered Spain, enlisted Gaul mercenaries¹, got help from Macedonia and Sicily, crossed the Alps with men and elephants, conquered most of Italy except Rome itself, and in a final winter, bedded his army down in Capua, south of Rome. He was poorly supplied from Carthage through Tarentum, which had fallen in 209 B.C. and his troops now seemed to lose their vigor. (Ref. 13) In 202 B.C. Hannibal was called back to Carthage where he was finally defeated by the Roman General Scipio, who was helped by Numidian cavalry under King Massinissa. In the end, Rome controlled all of Italy and Spain, but it was a costly war which changed Roman life considerably. There was an increase in urbanity with damage to the concept of democracy and the beginning of imperialistic expansion. Other factors may have played additional roles in the ending of rural simplicity. Apparently a declining rainfall about 250 B.C. provoked a marked decrease in the flow of Italian rivers, with resulting formation of mosquito-breeding marshes and stagnant pools. The mosquitoes, in turn, brought malaria. Grain production dropped and the grapevine and the olive began to be the big crops, so that even when the rains returned late in the century, Rome was already dependent forever on imported grain. The tens of thousands of slaves obtained in warfare augmented the slave society. But the capstone and triumph of Roman democracy also occurred in this century with the Lex Hortensia, in 287 B.C., a law in which the Senate agreed that decisions of the tribal assembly should have the force of law, even when contrary to the resolutions of the Senate.

NOTE: Insert 25. THE PUNIC WARS 264-146 B.C.

In Sicily it was the time of Archimedes and his great scientific accomplishments. When King Hiero of Syracuse went over to Hannibal's side in the Second Punic War, the Romans sieged Syracuse and Archimedes' invention of the water screw held the Romans at bay for some time. In the final attack on the city in 212 B.C., however, the scientist was killed. He had already established the laws of levers, methods of measurement of a sphere and a cylinder, the value of Pi and various laws of hydrostatics. He had either studied in Alexandria or had been in close contact with scholars from there.

CENTRAL EUROPE

The Celtic settlement of Austria was well under way by 279 B.C. and the great salt mines of Salzburg and adjacent areas were in operation. A tribe called "Teutones" had settled close to the Main River and some have interpreted this to mean that Germanic tribes were already in this area, but these were actually simply another Celtic tribe, and the true Teutonic or Germanic tribes had not yet left the northern reaches of Germany.

WESTERN EUROPE

SPAIN AND PORTUGAL

In the first half of the century Spain was essentially under the control of Carthage and there were various wars of the local Iberian, Ligurian and Celtic tribes against these overlords. The First Punic War had stimulated the Carthaginians to increase their dominance of Iberia. In 238 B.C. after the first Punic war, Hamilcar Barca crossed to Spain and recaptured those cities for Carthage whose allegiance had lapsed during the war years. Tradition has it that he founded Barcelona and Cartagena and that in accordance with his recommendations to his troops to intermarry with the natives, his own son, Hannibal, did so. He died during a charge against a Spanish tribe and Hasdrubal², nephew of Hamilcar, continued a three year campaign and then signed a treaty at Cartagena with Roman envoys agreeing not to go north of the Ebro River. Rome feared Carthaginian alliance with the Celts in the Pyrenees. By 221 B.C., however, Hamilcar's son, Hannibal, incorporating many Iberians in his army had captured Roman-Greek Saguntum on the east coast and precipitated the Second Punic War. By 218 B.C. Hannibal had crossed the Pyrenees to advance through France to Italy.

The Roman General Scipio the elder went from his home in Rome to Spain to fight the rear guard of the Carthaginian army which was still under the command of Hasdrubal and by 205 B.C. Spain had become a Roman province although the complete conquest actually took another 200 years with heavy toll in men and money because of constant guerilla warfare. Scipio, however, took his army to Africa to attack Carthage directly. It was his son, Scipio Africanus, however, who fought the final battles in Africa. (Ref. [15](#), [16](#))

FRANCE AND NETHERLANDS & BELGIUM

As previously mentioned concerning the Celts in general, the Gauls bleached their hair and wore jewelry but they were also vicious fighters, charging into battle some- times wearing chain mail and sometimes naked or wearing only collars and bracelets and formidable mustaches. Some were very tall, fair-haired and blue-eyed and may have been a ruling class over other shorter and dark-haired people. As did their central European brothers, they cut off their enemies heads and hung them around their horses necks, often later lining the skulls of enemy generals with gold. When not fighting they feasted, drank and hunted. The Gallic women of ten fought beside their men (See Queen Boadicca in 1st century C.E. under BRITISH ISLES). On their southern flanks the Celtic tribes were showing a gradual rising of their cultural level as contact was made with the southern civilizations, particularly Rome. (Ref. 17)

BRITISH ISLES

The new waves of La Tene Celts were even more warlike than their predecessors and became a warrior aristocracy in Wales and Cornwall. The Welsh and Cornish languages are survivors of these gifted, virile people who were prone to inter-tribal warfare and dynastic feuds. They squandered their force in endless competitiveness. Barry Fell (Ref. 18) has allegedly translated an ancient Irish manuscript of the 2nd century B.C. which appears to be a copy of a 3rd century document, because of reference to certain Italian and Sicilian coins of the latter century, and which appears to be a code of laws for Irish Celts, written by a Spanish Gael. This would indicate a much earlier presence of Celts in Ireland than usually stated. The Picts of Scotland were never a united people in these early centuries and the tribes warred with each other constantly.

SCANDINAVIA

Scandinavian tribes continued to expand and this may have been the period when they displaced a Mongolian people akin to or antecedents of the Laplanders and Esquimos, pushing them into the frozen north.

EASTERN EUROPE

Southern Russia and the Eurasian steppe was still the breeding ground of various barbarian Aryan tribes which periodically moved toward Europe proper and down into southwestern Asia. The Scythians were gradually being replaced by their racial and linguistic kinsmen, the Samaritans, about whom we have written previously.

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1. 14,000 Gaul mercenaries signed up with Hannibal and in addition a whole series of Celtic units in the Roma legions killed their officers and taking their victims heads along, deserted to the Carthaginians. (Ref. 14)
2. There were generals named Hamilcar, Hannibal and Hasdrubal in the 5th century B.C. as well as these apparent descendants in this 3rd century B.C.

Europe: 200 to 101 B.C.

EUROPE

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

As the commerce of Rhodes declined the government allied itself with Rome, a situation which was to continue for several centuries. In the Cyclades there were frequent changes of control. Crete remained a somewhat wild area with nests of pirates while Cyprus was still subservient to Egypt. (Ref. [1](#))

GREECE

From this time on for a number of centuries the affairs and destiny of Greece became intimately connected and almost inseparable from the Roman Empire and the military and political expansion of Hellenism lost momentum. The Romans fastened their control on Macedonia and Greece with remarkable ease between 200 and 146 B.C.. Sparta, under Nabis, attempted a revival of independence in 195 B.C. but it ended with Roman conquest. At the request of the Aetolians, Antiochus III brought Syrian forces into Greece in 192 B.C., but they, too, were routed by the Romans in the following year. Various members of the Achaean League fought as late as 146 B.C., but they did so in a divided way and fell, to become a mere backwater of the Roman Empire. As a political entity Greece disappeared from history for 2,000 years. (Ref. [2](#), [3](#), [4](#))

UPPER BALKANS

It was mentioned in the last chapter that Philip of Macedonia had given some help to Hannibal and that had started the Second Macedonian War in 200 B.C. Although Philip was beaten in a final

battle at Cynoscephalae in 197 B.C. he was graciously restored to his throne by the Roman victor, T. Quinctus Flaminius. (Ref. 5) As Rome took over more territory in Asia Minor Greek-Macedonian and Roman interests again collided, opening the way for the Third Macedonian War (171-168 B.C.) in which Perseus was defeated at Pydna. After seventy Macedonian towns were razed the Romans took direct rule of the country in 146 B.C. In the latter half of the century with its gold deposits exhausted and its manpower weakened by wars and emigration, Macedon could hardly maintain its former place among the world powers.

On the western coast of the Balkan area the Romans conquered Scodra (Albania) with its King Gentius, and established Illyrium as one of the earliest of the Roman colonies. Living in the areas of modern Yugoslavia and Serbia the Dalmatians split from the Illyrians and in several later battles Dalmatia was also then conquered by the Romans. The first Germanic tribe to reach into this area was the east German Bastarnian, which settled between the lower Danube and the Black Sea. (Ref. 6, 7)

ITALY (The map on page 242 will be applicable again)

In the first half of the century Rome continued the imperialistic conquests in the Mediterranean basin so that by 150 B.C. its territories included most of Spain, all of Italy to the Alps, Sardinia, Sicily, Illyria and the entire Greek peninsula. Allies included Numidia, Egypt, Pontus and after 133 B.C. Pergamum. In 159 B.C. after encouraging the Numidians to encroach upon Carthage to stimulate a fight locally, Rome moved in on the pretext of a broken treaty, declaring the Third Punic War. As noted in an earlier section, by 145 B.C. Carthage lay in burned ruins and Rome was in control of the Mediterranean. A typical Roman of this time was Cato, a sour, revengeful man - publicly moral, but individually cruel and selfish. He could not stand happiness in other people and it was he who urged on the Third Punic War with the slogan "Carthage must be destroyed". (Ref.8)

Meanwhile at home all was not well and the signs of social downfall were already appearing. An uprising of slaves and free workers began in 196 B.C. and gradually increased in intensity. In 193 Tiberius Gracchus passed the Agrarian Law which was an attempt at reform, dividing large farms into segments to be given to the poor. Octavius, another tribune, opposed the reform and

Tiberius had him thrown out, dividing Rome into two bitter factions. Tiberius was soon murdered and although his brother, Gaius Gracchus, became tribune and continued the reforms, the aristocrats won in the end and the land again began to be accumulated in large tracts and wealth concentrated in the hands of a few. Coupled with this was a general moral degeneration with restriction of the size of families by abortion and infanticide. The plunder from the provinces provided funds for orgies of corruption. The great indemnities exacted from the captured countries, with gold and silver seized, turned the propertied classes of Rome from men of means to persons of opulence so that reckless luxury resulted. It was a time of the rise and prominence of women, sexuality, and licentiousness.

In 144 B.C. another Agrarian Revolt broke out as a result of four factors:

1. The import of grain from abroad reducing the domestic price
2. The growth of large farms, as mentioned above
3. The influx of slaves for farm labor, which led to
4. The migration of the small farmer to the city

This revolution raged for 73 years and gradually passed into an actual civil war at the end of the century. Related were revolts of slaves on Sicilian plantations in 135 and 103 B.C. (Ref. 9) Finley (Ref. 10) writes that "--there was no action or belief or institution in Greco-Roman antiquity that was not one way or other affected by the possibility that someone involved might be a slave"¹. Millions of slave owners bought and sold slaves, overworked them, beat and tortured them and sometimes killed them, without legal retribution.

Other troubles also developed with the invasion in the north by two Celtic tribes, the Cimbri and the Teutones, who defeated Roman armies as they rolled on down through Gaul. In addition the Numidians in North Africa turned on them and attacked under the Leadership of Jugurtha, as we have detailed in section 1, B of this chapter.

Originally Roman medicine had been inherited from the Etruscans and was based chiefly on religious healing, but Greek medicine gradually infiltrated from Alexandria. The first well known Greek physician to go to Rome was Archagathos of Sparta

who had arrived with much celebration and honor just before this century opened, but who was later repudiated and called "butcher". (Ref. 11, 12)

CENTRAL EUROPE

The Germanic or Teutonic tribes now began to dominate central Europe. They were fair-haired like the Celts, but taller. By 150 B.C. the pressure of these tribes in the north and the Romans in the south had begun to tip the military balance against the Celts and their culture started to disappear in central Europe except in the kingdom of Noricum (present day southern Austria) from which the Romans had been forced to withdraw, and Switzerland. By the end of the century the Romans had pretty well reconquered these areas also.

WESTERN EUROPE

The Celtic peoples were now concentrated all along the Atlantic states. We insert at this time a few remarks about the Celtic religion, since the only source of information has been from the Roman records as they confronted the Celts in Gaul. Throughout all their tribes, the Celts had a priestly caste of Druids, although each group seemed to have its own local dieties and cults. The Druids were teachers of the young nobility and they forecasted the future. Once a year, Druid priests from all over met in solemn assembly near Chartres, France. They mediated disputes between tribes and enforced their judgments by excommunication or exclusion from the sacrifices, which seemed central to this religion.

The sacrifices included humans, of ten criminals or prisoners of war, and they were of ten burned in a sea of flames. (Ref. 13) The suggestion has been made that the astronomical knowledge and the basic cult of the Druids may have been passed to them from prehistoric peoples in England.

The Germanic tribes continued raids into western continental Europe, pushing the Celts into more and more rather narrow bands along the Atlantic and into the British Isles. The Cimbers and the Teutons had left Jutland and Schleswig-Holstein about 120 B.C., migrated into Gaul, defeating several Roman armies and spreading fear and terror. The two tribes finally separated, however, and were

then defeated by the Roman Marius, in 102 B.C. The Cimbrians met their defeat at Aqua Sextia and the Teutons at Vercellae. But the Cimbri had already sent forces into Spain from Germany and in Portugal the Lusitanian tribes, led by Viriathus, defeated all Roman armies for eight years before they finally fell as their leader was assassinated. In Gaul, Rome had to fight "barbarians" all along the Rhone River to protect Massilia, and by 120 B.C. they had organized southern Gaul into a separate Roman province. (Ref. 14, 15)

What appear to be Phoenician beads have been excavated near St. Sampson, Cornwall, dating from the 2nd century B.C. on, seeming to confirm the presence of the Carthaginians there as traders for tin. (Ref. 16) In Scotland the fusion of Picts, Celts, Norwegians and Bell-Beaker people continued, with the Picts probably the dominant group, although accepting some Celtic speech. (Ref. 17)

SCANDINAVIA

The Germanic tribes spread all through Scandinavia moving up across the Skaggerak and Kattegat into Norway and even northern Sweden. Many of the tribes seem to have originated, or at least made their preliminary proliferations, in the Denmark area. This period appears to have been the first of some recurring times of tremendous population growth in southern Scandinavia with the resulting necessity for migration of multitudes of people from the area.

EASTERN EUROPE

An Iranian tribe, the Sarmatians, had conquered and gradually displaced almost all the Scythians, although a few of the latter remained east of the Caspian Sea. After the Sarmatians had extended all across the whole of the Russian steppe they, in the second half of the century, divided into three groups:

1. Iazygians, west of the lower Dneiper
2. Roxolani, between the Dneiper and the Don, and
3. Alans, to the east and just north of the Caspian (Ref. 18)

Greek colonies around the Black Sea fell into decay and the Kingdom of Pontus, under Mithridates IV, took control of most of the Black Sea shore, including the Crimea. In the upper Dneiper basin, the northward advance of the Dneiper Slavs began to result in the ejection or absorption of the Balts in the area.

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1. Reference 249, page 65

Europe: 100 B.C. to 0

EUROPE

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

This was the century when Rome gained control of most of the Mediterranean. Augustus took the Cyclades and conquered Crete in 68 - 67 B.C. and Cyprus in 58. Rhodes was already under Roman jurisdiction. (Ref. [1](#))

GREECE

Greece became a battle ground for several different campaigns including the First Mithridatic War when the Pontus king was stopped only after he had gotten well down into this peninsula. Athens, which had allied itself with Mithridates, had its prosperity come to an end when it was sacked by the troops of the Roman Sulla in 87 and 86 B.C.. After the sea battle of Actium of 31 B.C. in which Antony and Cleopatra lost to Octavian, Rome legally as well as effectively held the whole of Alexander's heritage in this land and Greece began a reign of peace as an integral part of the Roman Empire. The island of Delos had now become the center of the Athenian world and served as the greatest trading center for slaves in the civilized world.

UPPER BALKANS

The basic population of this area remained Celtic and as a frontier of the Roman Empire it served as a battle ground for the Roman-Celtic conflicts, as well as part of the First Mithridatic War. The southern Illyrians were finally conquered by the Roman Augustus between 35 and 34 B.C. The Kingdom of Thrace remained intact

and north of this the large Dacian Kingdom also kept its independence in the area of Romania. The Greeks called these people "Getas".

ITALY

As the century opened there was still some indecision as to the actual scope and power of Rome over the remainder of the Italian peninsula. In 91 B.C. there was one final war between Rome and her neighbors over the idea of a united Italy and the scope of the rule of the Roman Senate. It ended by the practical surrender of the Senate to the concept of reform which allowed thereafter all Italians to become Roman citizens by decree. The classical Latin language emerged about 100 B.C. after some imprints from the languages of Asia Minor, the Balkans and Greece and this classical tongue then held sway for about 300 years.

On the government scene, while Sulla was in Asia Minor and the Balkans, the consuls Cinna and Marius had instituted a reign of terror, dissolved the Senate and ruled with "iron hands" until Marius' death. When Sulla returned he made himself a dictator and while restoring law and order and the Senate to power, he desolated large parts of Italy, executing over 5,000 people. He tried to establish a permanently aristocratic constitution but this was followed by all sorts of complications. Among these was the revolt of the slaves under Spartacus in 73 B.C., just after Sulla's death. The slaves held out in southern Italy, using Vesuvius' crater for a time as a fortress but when they were at last captured after two years by Crassus and Pompey some 6,000 were crucified along the Appian way. The two generals, former cronies of Sulla, had risen to power through separate and originally conflicting ways. Gnaeus Pompeius, after prevailing upon Sulla to give him the title of Magnus (The Great), won prominence by subduing the traitor Quintus Sertorius, who as a governor of Spain had attempted to set up a separatist regime of his own in that province. Crassus, in addition to his victory over the slaves, had made himself fabulously wealthy through various and sundry unscrupulous deals and now the two men united to undue Sulla's constitution and had themselves elected consuls in 70 B.C. This was the era of Marcus Tullius Cicero, a lawyer who had as his fondest desire to be accepted into the inner circle of the Senatorial class and his whole career was geared to that aim. By prosecuting one of the corrupt provincial governors

Cicero gained a praetorship and a rise to power. Meanwhile Pompey gained still more esteem by conquering the Cilician and Cretan pirates who had been preventing normal sea commerce in the Mediterranean and disrupting the great slave emporium at Delos. Soon, therefore, with Cicero's help, Pompey was given absolute power over both land and sea forces through the entire empire. It was then that he went to reorganize the entire Near East. When he returned after several years involvement in the Mithridatic wars, organizing Asia Minor and Syria and conquering Jerusalem he allegedly brought back some two million slaves. (Ref. 2)

Gaius Julius Caesar was the youngest ruler of the late Republic. By 58 B.C. he had been a high priest, staff officer, finance minister, military governor, senator and consul. He had married three times, had countless love-affairs, led campaigns and been involved in various intrigues¹. As he ascended the ladder of political power his offices entailed enormous expenses and this got him involved with the multi-millionaire, Crassus, from whom he had to borrow large sums of money. After a period as governor of Spain, Caesar returned to Rome to join the power group of Crassus and Pompey. Although meeting some opposition in the Senate led by Cato the Younger, a follower of Greek ideals and standing for an honest financial policy in government, Caesar, Crassus and Pompey formed an extra-legal coalition called "the First Triumvirate". Each soon went his separate way, however, with Caesar conducting his victorious campaigns in Gaul², Germany and Britain, then returning to take control of Rome, over Pompey's objections. This was followed by a victorious trip to the Middle East in Syria and Egypt. When Caesar then returned to Rome there was great inflation and the "annona", or free grain distribution from the public granaries was excessive. Even by 71 B.C. some 40,000 adult male citizens had been receiving free grain, and in the next decades it increased greatly so that Caesar thought he did well to cut back to 150,000 free-loaders.

Meanwhile Crassus had obtained command of the eastern forces and prepared to emulate the glories of Lucullus and Pompey in Asia Minor and Armenia, but Crassus ran into the Parthians. These fierce Iranians, perhaps with Turanian Mongolian mercenaries, killed 20,000 Roman soldiers along with Crassus and captured 10,000 more at the Battle of Carrhae (53 B.C.) in Syria. The hold of the Romans on Mesopotamia was never very secure.

After Crassus' death Caesar and Pompey faced each other as antagonists and as the months went by definite lines of battle and forces were drawn up and actual civil war followed. Caesar soon won control of all Italy and gained Sardinia, Sicily and North Africa. After defeating Pompey's forces at Ilerda in Spain he returned to Rome to be made dictator. Pompey fled to the east where he built up a loyal military establishment but all for naught as Caesar caught up to him in Thessaly in 48 B.C. and defeated him. Pompey fled to Egypt only to be assassinated by the teen-aged Ptolemy XIII. After having been made dictator "for life" by the Senate in 45 B.C., Caesar was assassinated by "friends" to whom his divine aspirations were intolerable. The extent of the Roman Republic at the death of Caesar is shown in the map below.

NOTE: Insert Map 28: THE ROMAN REPUBLIC AT THE DEATH OF CAESAR

Marc Antony, who had shared a consulship with Caesar, considered himself the sole heir of Caesar and he, with the latter's nephew, Gaius Julius Caesar Octavianus (later Octavian) and Marcus Aemilius Lepidus, who had followed Sulla as consul, all together formed the Second Triumvirate. Publicly the purpose of this association was to avenge the death of Caesar but actually it merely set up power bases for Antony and Octavian. Inevitably they could not abide each other and the quarrels terminated with the Battle of Actium off the Greek coast in 31 B.C. with Octavian winning and subsequently ruling alone as emperor, called Augustus. The people accepted his dictatorship because they had been faring so poorly under the previous senatorial oligarchy. A reign of peace, another "Golden Age", resulted.

Before this time the Romans had raised armies only for specific tasks, disbanding them after the mission was accomplished, but Augustus created a standing army of 25 legions with the equivalent of another, the Praetorian Guard, in Italy as his personal protection. Of the others, 8 legions were stationed along the Rhine, 3 along the Danube in the Balkan area, 4 in the Yugoslav territory, 4 in Syria and Lebanon, 2 each in Egypt and Portugal, and one each in northern Spain and Carthage. Each legion contained 5,000 men divided into 10 cohorts of 480 each.

In spite of the "Golden Age", the relief roles had again built up in Rome to 320,000 so that just under one-third of the population had to receive free government grain to exist. It took some 14 million bushels of grain each year just to supply the city itself where 1,500,000 citizens lived, housed in some 46,600 insulae (apartment blocks) three to eight stories high, made of wood, rubble and brick. Windows were simply wall openings and were covered with shutters or hangings. Only the rich had wells or taps into the city conduits; the rest got water from public fountains. There were public lavatories and toilet receptacles which were frequently emptied into the street. Menial work was done by about 2,000,000 slaves, a middle class citizen owning about eight while the rich might have up to one thousand and an emperor twenty thousand. Slaves made up 35% of the population of Italy. (Ref. 4) Livy stated that it was common for Roman orators to state that "--Jews, Syrians, Lydians, Medes, indeed all Asiatics are born to slavery"³ Horses were of little use as a source of energy in this Roman period as they were badly harnessed with the yoke tending to throttle them and they could draw only a light load. Four slaves could do as much. Engineers did manage to change water wheels to the vertical position and add gears which greatly increased their efficiency for turning mill-stones. (Ref. 5)

NOTE: INSERT Map 30: ROME 100 B.C.

Hellenic culture continued to pour into Rome and literature and art took new dignity. Cicero, Catullus, Virgil, Horace and Livius the historian, all translated and adjusted Greek learning to the Latin tongue. A great philosophical poem, giving the views of Democritus and Epicurus was written by Lucretius, the Roman Epicurean, during this century. The wealthy hired Greek nurses and teachers for their children. The Roman physicians of this period were chiefly Greeks or at least Greek-trained. Asclepiades, originally of Bithynia, developed a high reputation as a physician and was a friend of Cicero and Lucretius. He abandoned the old Hippocrates doctrine of the four humors and felt that the physician, not nature, cured disease. Most Roman practitioners were either freedmen or slaves. (Ref. 7, 8, 9, 10, 11, 12, 13, 14)

Lucius Licinium Lucullus, one of the Roman generals in the Third

Mithridatic War, is credited with bringing the cherry into Europe from the - shores of the Black Sea. Every Roman (as well as every Greek) had his beehives, as honey was the only sweetening common in the West. Indian cane sugar was more expensive and the raw cane was actually less tasty than honey, so there was no attempt to import it, except for medicinal purposes. (Ref. [15](#), [16](#))

CENTRAL EUROPE

GERMANY

There was now a predominance of Germanic tribes in the area of present day Germany and Caesar and the Romans never actually penetrated that area although Roman merchants and traders did appear with goods to trade for furs and slaves. As the Germanic tribes came south their first encounters were with Celts, but whether much fighting was involved or not is unknown. Actually the Germans were very little different from the Celts; their religions and their languages had common origins. The Romans said the Germans were rather blonder, but otherwise little physical distinction was made.

Drusus conquered the Bavarian region for Rome from the Celts in 15 B.C. and Rhaetia, which included parts of southern Bavaria along with the Tyrol and east Switzerland, was established as a Roman province late in the century.

AUSTRIA AND HUNGARY

Having conquered the Celtic Cimbri and Teutones coming down at the edge of Italy and Austria, the Romans now squeezed the Celts out of Austria and consolidated their authority along the Danube clear to Budapest. Some of eastern present day Hungary appeared to be a part of the Kingdom of Dacia, which held out against Roman control for another century.

CZECHOSLOVAKIA

The Celtic Boii people, for whom Bohemia was named were driven out of Bohemia at this time by the Germanic tribes descending from the north.

SWITZERLAND

As noted above east Switzerland was included in the Roman

province of Rhaetia. The crowded Helvetii around Lake Neuchatel began a migration westward with cattle and wagons, leaving 400 villages and thousands of homesteads. Fearing a threat to her Mediterranean coastal province, Rome sent Caesar north to intercept the Helvetii and this he did as they poured through a gorge leaving the Lake Geneva area. Of 368,000 Helvetii, only 110,000 got back to Switzerland as the Romans retained control of the area. (Ref. [17](#))

WESTERN EUROPE

SPAIN AND PORTUGAL

Both of these areas continued as part of the Roman Empire. It has been noted under ITALY above that Julius Caesar was sent to Spain in 59 B.C. to suppress the guerrilla warfare and he did get some help from local groups. It was still later, however, after he had been given Gaul in the First Triumvirate that he became locked in a power struggle with Pompey and returned to Spain, defeating Pompey's son in the great battle of Munda near Cordoba in 45 B.C., thereby gaining mastery of the world. The Iberians then adopted the Roman language and culture. (Ref. [18](#))

FRANCE AND NETHERLANDS & BELGIUM

Gaul (France) was still essentially Celtic and Caesar's conquests began the Latinization of the country and helped to contain the Teutonic people to the east of the Rhine. The curly-headed Parisii, a Celtic tribe consisting of fishermen and navigators, settled a five acre Ile de la Cete in the river which is now in the center of Paris. The Batave Germanic tribe settled in the Rhine delta, now known as the Netherlands about 14 B.C. and they and the Frisians became the ancestors of the modern Dutch. (Ref. [19](#))

After Julius Caesar massacred the Swiss, as noted in a paragraph above, he proceeded in the next eight years to "pacify" all of Gaul, taking some eight hundred towns and killing, by his own count, 1,292,000 men, women and children. He may have enslaved nearly another 2,000,000. In 55 B.C. Caesar experienced and described the greatest naval battle that he had ever been called upon to mount⁴. His opponents were the Celts of Brittany and their allies from Britain, who had no less than 220 ships, all larger than and superior in construction to those of the Romans under Admiral Rutus. These vessels, which towered over the Roman galleys, had the capability

of crossing the Atlantic (Barry Fell's concept) and were apparently under the leadership of the Veneti of Armorica with their allies, the Curiosolites, the Venelli of the Channell Islands and Cherbourg, the Namnetes and Lexovii of Normandy. The high-bowed, graceful ships propelled by the wind were only defeated when the Romans hurled falces into the rigging of the Celtic vessels, then rowing away, tearing out the rigging. Then grappling irons were thrown and the 200 men in each trireme would board the Celtic vessel and in hand-to-hand combat they finally won. (Ref. [20](#), [21](#))

NOTE: Insert Map 27: GAUL IN CAESAR'S TIME

On land it required a great engineering feat for Caesar's legions to breach the "muris gallicis", a box-like grid of timbers filled with rubble and stone that surrounded the Celt town of Avaricum (present Bourges, in the center of France) and then slaughter the 40,000 people within. The Gauls at last rallied behind a young chief, Vercingetorix, who first had his people burn their fields and towns as they retreated so that the Roman troops could not live off the land, and then he initiated guerrilla warfare to cut off new supplies to the Roman troops. Vercingetorix was finally cornered in the hills of eastern, central France behind some fortifications. Caesar further surrounded these with nine and a half miles of fortifications of his own to try and contain the Celtic chieftain. Even then Vercingetorix slipped out some cavalry by night and had them gather an additional quarter of a million Gauls from some forty different tribes. In the interim Caesar had built still another circle of fortifications fourteen miles in circumference, facing outward to meet the Gallic reinforcements. For days the battles raged, with the methodical butchery of the 40,000 legionnaires of Rome finally prevailing. Vercingetorix emerged alone from the fort of Alesia, surrendered and was taken prisoner to Rome where he was paraded through the Forum and finally strangled to death some six years later. Caesar allegedly obtained enough slaves after Alesia to give one to each of his legionnaires. The course of Gallic civilization was all down-hill from this time on. (Ref. [23](#), [24](#), [25](#))

BRITISH ISLES

The Belgic tribes were the last of the successive waves of Celts into

Britain. They were a people of chariots and horses who introduced a coinage of silver and copper and established themselves as a tribal aristocracy. The Belgic capital was Colchester. The most ancient lettering known in Britain is to be found on the Belgic coins. This tribe seems to have been a mixture of Celtic and Teutonic origin from the region of the lower Rhine. Their new country produced corn, cattle, gold, silver, iron, hides, slaves and hunting dogs. Caesar crossed the channel starting at midnight August 26, 55 B.C. with 80 transports for his legions, experiencing considerable trouble in so doing, with the loss of some ships and men. He won a few victories over the Belgae under their leader, Cassivellaunus, but hastily departed England before winter set in. (Ref. 26, 27)

Scotland and Ireland were probably not yet involved in these new invasions and remained essentially as in the last century.

SCANDINAVIA

According to Tacitus, writing about A.D. 100, Sweden in the first century B.C. was dominated by the Suione Teutonic tribe. Scandinavia was never entered by the Romans, although trade was carried on with Danish amber, fur and various slaves exchanged for several Roman products, including wines and some iron objects.

EASTERN EUROPE

In this and the past century the Germanic Goths had appeared around Sweden and the Baltic Sea and started migration down into northeastern Germany. Just to the east of them were the Finno-Ugric speaking Estonians and just south of them in the Polish area and extending into middle Russia were Slavs. In southern Russia the Sarmatians were in the ascendancy and they spread out well to the east to the Caspian.

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1. These remarks about Caesar were taken almost verbatim from Herm (Ref. 3), page 164
 2. The reader will find some interesting material regarding the difficulties of Caesar's conquests of the Gauls under the heading of WESTERN EUROPE, in this same chapter
 3. As quoted by Finley (Ref. 6), page 119.
- NOTE: INSERT Map 30: ROME 100 B.C.
4. According to Barry Fell in America B.C. (Ref. 22), Caesar described this sea battle in "De Bello Gallico"

Europe: 0 to A.D. 100

EUROPE

An interesting bit of trivia is that while fermented drinks had been known and used by mankind for thousands of years, the process of distilling was discovered only in this first century of the Christian era. The Gaelic *uisge beatha* was corrupted to "whiskey" and the Germanic *Gebrannterwein* or *Brandewin* meaning "burnt wine" was eventually Anglicized to "brandy". (Ref. [1](#))

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

A part of the Roman Empire.

GREECE

The city-states of Greece continued to govern themselves although theoretically they were under Roman rule. They were poor by virtue of Roman taxation and were almost destitute morally, spiritually and physically. This was the-time of Plutarch and of Epictetus, the slave philosopher who combined the concepts of the Stoics and Cynics into many ideas paralleling the attitudes of early Christianity, including the Golden Rule. Thus Stoicism, originally the proud and scornful philosophy of aristocrats, found its final and most eloquent voice in a slave. Its doctrine of a final conflagration of the world, its rejection of all pleasures of the flesh, its humble surrender to the hidden will of God, all were preparing for the theology and ethics of Christianity. The age of the Cyrics paved the way for the Christian monks.

Corinth became the wealthiest city of Greece while Athens remained an intellectual center. Eleusis, across the Aegean Sea,

became a religious center of sacraments and "mysteries". (Ref. 2)

UPPER BALKANS

The Roman province of Pannonia, the most southern portion of which comprises present day Yugoslavia, was established in A.D. 9 after defeat of the native Illyrians.

Moesia, which had never been penetrated by Grecian influence, was organized as a province in A.D. 44. The upper Balkans now showed increased activities of all kinds. There was considerable agriculture, mining and herding, as well as commerce with Asia through the port of Salonika in Macedonia. Great cities were built and roads constructed, such as the Via Egnatia, that ran across the Albanian alps to Salonika and Constantinople. In Dacia (Romania) there was a strong tribe of the same name who were never subdued by the Romans in this century. In A.D. 85 they surged out across the Danube into Moesia (now Serbia and part of Bulgaria) but were pushed back by Domitian. The Romans could go no further, however, as the Marcomanni and Quadi, who had occupied Bohemia west of Dacia, joined the fray and defeated Domitian. A peace was signed with the Dacian king, Decebalus, and he subsequently turned on the Germanic tribes and defeated them. Iazygians were also squeezing in between Quadi and Dacians and Roxolani were approaching Dacia from the east. In the area that they did control, the Romans found Thracians useful as soldiers, slaves and especially as gladiators. (Ref. 3, 4, 5, 6)

ITALY

This was a century of some great and some lesser emperors of Rome in what has been called the "Silver Age" to indicate that it was not quite as good as the previous "Golden Age" under Octavian. The Julio-Claudian Dynasty continued under TIBERIUS Claudius Nero who reformed the government and law, advanced construction of public works, elevated the legal status of the provinces and re-subdued and Romanized Gaul and Britain. Tiberius' reign had been saved from any serious Parthian threat because of dynastic quarrels within Parthia. In A.D. 37 when Tiberius was dying he indicated as his successors his young grandson Tiberius Gemellus and the surviving son of Germanicus, Gaius Caesar Germanicus. The latter soon put the former to death and ruled alone as "CALIGULA", a probably insane, megalomaniac given to excesses and obscenities of

all kinds. He was assassinated in 41 and Tiberius CLAUDIUS Drusus became emperor. His four wives were his undoing but he actually was a fairly able man and instituted some definite administrative improvements.

He was followed by Nero who began his reign well under the guidance of Seneca, but in spirit he was an actor and had to play the monarch in the grand manner. He was recklessly cruel to the aristocrats, but generous to the poor, with the possible exception of the new Christians who were first persecuted about A.D. 64, when Rome was burned.

Thereafter followed the Flavian Dynasty. Vespasian was a man of sense, ability and honor who directed the war against Judea and established the first system of state education. The last of this line was Domitian (A.D. 81 - 96) who managed the flourishing empire well during a great age of construction. At the end, however, like many others, he became very cruel, deified himself, indulged in sexual discrepancies and became paranoid about possible conspiracies against him. Throughout this age there was a decay of the native religion in Rome and the multiple gods of Jove, Mars, Mercury, Jupiter and others began to give way to the Stoic philosophy. (See GREECE, above)

We should mention some of the non-political figures of this century. Seneca was born in Spain in 4 B.C. and became a copious writer, tutor to and later financial backer to Nero. Pliny the Elder (A.D. 23 - 79) was a great mind of the day, but his book *Natural History* with dissertations on humans, animals, metals, chemistry, medicine and astronomy, was actually a monument to Roman ignorance. He also compiled an encyclopedia citing 150 Roman and 400 Greek scholars, before he was killed in the eruption of the volcano Vesuvius in A.D. 79. Of interest also is *De Materia Medica* by a-Greek botanist, Pedanios Dioscorides, who had served as a military surgeon in Nero's army. He detailed the properties of some 600 medicinal plants in this text, which remained an authoritative guide for 1,500 years. (Ref. 7) At about the same time a patrician layman, Celsus, tried to summarize all knowledge. Only eight of his many books have survived, the *De Medicina*, and even these were lost for centuries. (Ref. 8)

As noted above it was in the year 79 that Mt. Vesuvius on the Bay of Naples erupted after 16 years of violent surrounding earthquakes. The cities of Heraculaneum and Pompeii were buried

and thousands were killed. At 95 a severe form of malaria appeared in the farming areas surrounding Rome and became endemic there for the next 500 years. At that time ten aqueducts supplied Rome with 250 million gallons of water per day. (Ref. [9](#), [10](#))

Throughout this century Roman legions continued to probe the frontiers in Gaul and in the east, gradually extending the empire boundaries. Comments about some of the battles will be found in the paragraphs concerning the regions involved. The population of the Roman Empire at this time was about 54 million, while that of Han China was an estimated 57,600,000. Rome now began to break the Arab monopoly on spices from the east by building ships large enough to sail from the Egyptian Sea to India. The journey was still hazardous and at one time pepper cost \$125,000 per 12 ounces. As the secret of the changing monsoon winds in the Indian Ocean was solved, however, pepper became cheaper. Gold was taken to Malabar to be exchanged for pepper. Pliny wrote that Roman ships of this period sailed from the mouth of the Ganges to Ceylon in seven days. The sailing ships were up to 420 feet long with 50 foot beams. One commercial ship had room for 200 sailors, 1,300 passengers and 93,000 bushels of wheat. Wines made from the very prolific Italian vines were now generally preferred to the Greek product. (Ref. [11](#), [12](#), [13](#), [14](#), 185)¹

¹

Because of the severe geological instability of the region, however, earthquakes and adjacent volcanoes have subsequently resulted in a sinking of the land and marked shifting of the city of Naples. (Ref. [15](#))

CENTRAL EUROPE

GERMANY

In this century there were three to four million people living in the area of modern Germany with three main divisions of the Germanic tribes; The eastern Germans on the Oder and Vistula who were the Visigoths, Ostrogoths, Burgundians and Vandals; the northern Germans of the southern part of Scandinavia, the Baltic islands and Jutland; and the western ones between the Elbe, the North Sea, the Rhine and the Main. The last group preserved their ancient Germanic traits and are the present day Germans, Dutch, Flemings,

Anglo-Saxons and, in part, the French.

The early Germanic peoples lived simply, eating horse meat and living in log houses. They were monogamous and held slaves. Super-individual motivations such as patriotism or religious idealism were strangely lacking as these people were highly personalistic. The boundary line between the Roman Empire and the Germanic lands became fairly well established at the Rhine, but battles raged back and forth from time to time. Domitian crossed the Rhine at Mainz to campaign against the Chatti and early victories allowed him to construct a series of forts which were later extended along the central Rhine and then across to the upper Danube. Where this joined an older line of forts on the Danube part of this fortification line became known as "the limes".

AUSTRIA AND HUNGARY

The Emperor Tiberius started as early as A.D. 25 to strengthen the frontier forts of the Danube limes to keep out the northern barbarian hordes. Vindobona (Vienna) was one of three important military bases of the Danube Valley and watch towers were erected all along the river and boats were on constant patrol. At the end of the century there was a completely fortified military road from the Boden See (Lake Constantine) to the Danube limes. The southern portion of what is now Austria and Hungary, along with the western Balkans, was included in the Roman province of Pannonia.

CZECHOSLAVAKIA

As we noted earlier, the Marcomanni and Quadi Germanic tribes had occupied the area of Bohemia and then went south to help the Dacians defeat Domitian, slowing down the Roman advance in this area. The Dacians then turned on the Germans, however, and drove them from the territory.

SWITZERLAND

All under Roman control.

WESTERN EUROPE

SPAIN AND PORTUGAL

All of this area also was Roman controlled. In addition to slaves, there were several groups of free men in Roman Spain - land holding aristocrats, a middle class of merchants, professional people and bureaucrats, manual workers, soldiers and smiths. The Seneca

family of Rome had originally come from Cordoba. (Ref. 16)

FRANCE

The Gauls of France progressively reached higher levels of culture and were enfranchised as a province of the Roman Empire. Thomas (Ref. 17) says that about A.D. 100 the Celts invented the metal-hooped, wooden barrel which changed the wine industry greatly since the drink could be stored much better in barrels than in amphorae. He does not say which Celtic group made this progress, but we know that advances in the Gaulic wine industry offered such a challenge to the Italian vineyards that Domitian ordered half the vines in the Rhone region uprooted.

THE NETHERLANDS AND BELGIUM

The Batavi of the Netherlands were allied with the Romans until A.D. 70 when a chieftain called Civilis revolted, building a line of forts along the southern bank of the Rhine to mark off his own empire. The Frisians stayed in the north in a "no-man's land". (Ref. 18)

BRITISH ISLES

Rome conquered Britain in this century but it was not easy. It took about four decades to completely Romanize England after the A.D. 43 invasion by the army of Claudius, using four Roman legions (out of 29 in the entire empire), each legion containing about 5,600 men. (Ref. 19) Boadicea (or Boudicca), a widowed queen of the Iceni tribe became a famous heroine by leading her tribe against the Romans in East Anglia as she moved against various Romanized towns in A.D. 61 and massacred all, a total of about 70,000 people, including 30,000 to 40,000 in London alone. She was finally defeated in a terrible battle by Suetonius, who had only 10,000 fully armed men against some 80,000 Britons, but these included women and children. Emperor Claudius finally managed to have eleven British kings surrender to him at Colchester.

At this period the Celtic Britons still followed their Druid philosophers in a religion that apparently involved human sacrifices. The Celts had three groups of learned men:

1. Bards, who composed and preserved poetry and music
2. Vates, who were priests responsible for carrying out sacrifices

to the gods

3. Druids, who studied natural science and philosophy

Myles Dillon, who was a professor of Celtic at the University of Dublin, contended that the Druids should be likened to the Brahmins in India, since they carried out their professions including teaching, study, poetry and law in a similar way¹ Julius Caesar wrote that the Celtic Druids had knowledge of the stars, the universe, the dimensions of the earth and other related matters. Standing stones in linear or circular groupings serving as astronomical markings are found in all Celtic lands. (Ref. [20](#))

Perhaps it was in this century that the Picts finally grouped themselves in two dominant tribes; one in the north to be called in the next century "Caledonii" by the Romans, and secondly a southern tribe of the south, later called "Maeatae". The Roman historian, Tacitus, says that in this century the Romans fought a great battle of Mons Grampius² against heavy legged, tall, red-haired men who fought savagely with long swords and round shields, led by a man called "Calgacus, the Swordsman"³.

Early Celtic Ireland had not writing until the 4th century C.E., and the early history that descended orally through the centuries contains so much myth and legend in the sagas that it is difficult to separate fact from fiction. Apparently in old Celtic fashion, young men of upper class were considered to be men at 16 or 17, in essence "knights", and they had to demonstrate their maturity by raiding enemy territory for cattle and human heads. It is said that the men of Ulster did not keep the skulls of victims as trophies but only their brains, formed into little balls with gypsum. The men liked to sit, eat and drink together in large banquet halls, with the women looking on from a balcony above. Ireland had five main areas, each called a "fifth"- Ulster in the north, Munster in the south, Con- naught in between on the Atlantic side and Mide and Leinster on the east side. (Ref. [23](#))

Prince Caradoc, called "Caractus" by the Romans, was a Welsh leader who was not defeated until A.D. 50 after he was betrayed by Queen Cartimandus of the Brigantes (Ref. [24](#)) and he was taken prisoner to Rome. In Wales, the Romans put in roads and worked copper and gold mines, but they could not pacify the Welsh who were not actually considered won for Rome until A.D. 78.

SCANDINAVIA

There was a proliferation of various Germanic tribes throughout Norway and Denmark. The Swedish peninsula was dominated by the Suione tribe, while the island of Gotland and other Baltic islands were probably inhabited chiefly by Goths. Snorre Sturlasson, a learned Icelandic scribe, described the origin and ancestral home of the Scandinavian kings as on the border between Europe and Asia along the eastern shores of the Black Sea.

This work has been translated by Holtsmark and Seip⁴ Snorre gives a detailed, geographical account of the early migration through Europe, passing from Saxony into Denmark, Sweden and Norway, having been chased out of the Caucasus by the ravaging Roman armies and led by the Viking King Odin. Snorre named thirty kings before reaching the generation of Harold Fairhair, of which we shall hear more later in the 9th century.

Rich Stone Age finds show that from prehistoric times the Finnish peninsula has been the meeting place of peoples from Russia, Scandinavia and central Europe. Ancient Lapp and Nordic stocks went north, as Finno-Ugrian speaking peoples came in from the east.

In the century under consideration there were three groups of people: The Karelians, who were a dark, short, brachycephalic people entering from the southeast; the Tavastians, with high cheek-bones coming across the Gulf of Finland; and the Finns, proper, from the southern shore of the Gulf of Finland. (Ref. [26](#), [27](#)) All of these northern people were probably excellent seamen. A forty-two foot, slender, rowing canoe has been found in Denmark dating to this century.

EASTERN EUROPE

BALTIC AREA

Estonians had already settled on the southern Baltic coast, while Goths inhabited the Baltic islands and perhaps some of the south shore, particularly in the Vistula River basin of Poland. Eastward were the Balts (Letts), who eventually became the Latvians, Lithuanians and the now extinct Old Prussians. The language was an individual, separate Indo-European group entity, neither Germanic nor Slavic. The Roman Tacitus, writing in this century, called the Estonians the "Aesti". (Ref. [28](#), [29](#))

RUSSIA

Most of Russia was still sparsely inhabited but in the central, western part were chiefly Slavs and farther east and south there were Huns. In the Caucasus a new Sarmatian people, the Alans, may have been pushed there by the western expansion of the Kushans, whom we have met in Central Asia. These Alans, in turn, pushed the westward lying lazygians entirely out of Russia into the Theiss plain of modern Hungary and Yugoslavia. (Ref. [30](#))

[1](#)

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

[2](#)

[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

[3](#)

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1. As related by Herm (Ref. 21), page 146.
2. Mountains of central Scotland.
3. As recorded by Prebble (Ref. 22), page 1.
4. Taken from Thor Heyerdahl (Ref. 25), page 127.

Europe: A.D. 101 to 200

EUROPE

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

Part of the Roman Empire.

GREECE

The home place of the Hellenic world enjoyed an "Indian summer" which was mistaken for a "Golden Age". A thousand city-states lived peacefully together but an impalpable censorship from the Roman overseers was already slowly eliminating intellectual and artistic vitality. At the end of the century the Germanic Costobii raided down through Greece to within 14 miles of Athens. (Ref. [1](#))

UPPER BALKANS

Almost all of the present day Balkans belonged to the Roman Empire, including Dacia or Romania, Moesia or Bulgaria, Thracia and Dalmatia. The very northern portions of Romania and Bulgaria may have been outside the Roman jurisdiction, in the large area known then as Sarmatia and extending over into Russia on the north shore of the Black Sea. In the upper Balkan area, however, only Romania can be said to have been truly Latinized.

ITALY

The first half of the century, under Emperors Trajan and Hadrian and their immediate successors, was one of the great periods of the empire, with general prosperity and with limited exceptions, such as the Romano-Jewish Wars and Armenian squabbles, a period of peace. The Mediterranean world had a fullness of life not seen

before or since. The Greek spirit ruled the mind and the East, while the Roman spirit ruled the state and the West. Under Trajan the empire reached its greatest geographical extent, as indicated on the map and in the summary of the empire at A.D. 117 to follow.

1. AFRICA. All of Egypt and the north African coast, including Mauretania, Syrtica and Marmarica.
2. THE NEAR EAST. A portion of Arabia, all of the eastern Mediterranean coast, all of Syria, Iraq, Media in Persia, Asia Minor, including Bithynia, Pontus and Cappadocia, Cilicia, Lycaonia, Gallatia and Armenia.
3. EUROPE
4. SOUTHERN EUROPE. Greece and most of the Balkan area, including Dacia (Romania), Moesia (Bulgaria), Thracia and Dalmatia (southern Bulgaria, European Turkey, Yugoslavia and Croatia), and all of Italy and Sicily.
5. B. CENTRAL EUROPE. The Austrian-Hungary area, known then as Pannonia, Noricum and Baetia, and those parts of present day Germany which lie west of the Rhine and south of the Danube, including Bavaria, Switzerland and the parts of Germany about the Black Forest.
6. NOTE: Insert Map 29. THE ROMAN EMPIRE AT THE DEATH OF TRAJAN A.D.
7. WESTERN EUROPE. Hispania (Spain and Portugal), Brittanica (England and Wales), Gallia and Belgica, etc.

The empire was surrounded by Germania, Sarmatia, Parthia and the remainder of Arabia.

A few words about the emperors themselves seems indicated. Trajan was the first emperor to have been born outside Italy, coming from a Roman colonial family living in Spain. He lived simply and was a tireless administrator who completed extensive public works including roads, buildings, bridges and aqueducts. He awarded 5,000 scholarships to needy students and he financed secondary schools and pensions for teachers. Romania was conquered because it was on the road to Byzantium at the Bosphorus. When his armies reached the Indian Ocean and Trajan went home, revolts spread and his nephew, Hadrian, in command in Syria, withdrew to the Euphrates. Tacitus did his historical writing during this reign.

Hadrian (117 - 138) was the most brilliant of the Roman emperors and his reign the most prosperous. Under him the Pantheon, which had previously burned, was reconstructed.

Later in the century (A.D. 161) Marcus Aurelius came to power and brought thousands of Germans into the empire, both as settlers and as soldiers. The ultimate effect was that the "barbarians" gradually began to dominate Rome. Marcus was one of the greatest exponents of the Stoic philosophy and a good public servant and administrator. It was during his administration that a great plague was apparently brought back by armies from the East. Although Rome had epidemics as far back as 387 B.C. the one of A.D. 165 was the worst. The disease, perhaps small-pox, remained epidemic in various cities for fifteen years and in some areas 25 to 35% of the people died. The population of all Mediterranean lands subsequently decreased overall for the next 500 years. Following Marcus' death, Rome began to visibly decay. At the last of the century the barbarian tribes began to attack again in various parts of the empire, with the Chatti, Chauci and Lombards raiding Italy from Germany and other Germanic tribes raiding through the Balkans into Greece. (Ref. 2, 3, 4, 5)

Overall there were some 54,000 miles of Roman roads, making a network for communications throughout the empire. The middle of each road was raised and covered with gravel to allow drainage. There were post stations every 10 to 12 miles on main roads and each station had horses, veterinarians, surgeons, cartwrights, carriages and wagons. In the outer empire donkeys and camels were available. Still, the bulk of internal trade went by water. (Ref. 6)

On the medical scene, Galen, born in Pergamum, Asia Minor practiced medicine in Rome and was physician to Emperor Marcus. He dissected the Barbary Ape and left some good anatomical and physiological knowledge for posterity. His works were considered as an unimpeachable authority for nearly 1,500 years even though much was in error.

Galen used an old Asia Minor combination of medicinals called "theriac"(FOREIGN) (related to Greek word for "wild beast") and he increased the number of ingredients to over 70. This also persisted as a treatment well into the Middle Ages, but at least some of its popularity may have been due to the presence of opium among its ingredients. Other 2nd century contributors to medicine included Soranus, writing especially on diseases of women, and Rufus, also

from Ephesus, who made important anatomical observations while in Rome particularly about the eye and brain. Celsus, a Roman, wrote De Medicina which actually codified Greek medicine of the previous century. (Ref. 7)¹

¹
(Ref. 8)

CENTRAL EUROPE

Northern Germany seethed with a multitude of Germanic tribes. Bordering on the Baltic were the Gepids and farther west the Goths, while just south of them were the Burgundians, bordered on the east by the encroaching Slavs. On the North Sea coast were Frisians, then Sennones, Hermanduri, Marcomanni and Quadi, in turn going east. The last two named tribes were actually in the region of Bohemia. An Iranian tribe, a branch of the Sarmatians, now occupied most of present day Hungary. The Romans had their farthest advance against the Germanic tribes in A.D. 110, under Trajan, when they fortified boundaries from Holland down the Rhine to near Mainz and then east to near Frank-on-Main, and then down the Danube. All areas south of this line were dominated by the Romans for four centuries, and were eventually filled with cities and roads. After Christianity dominated the area, the few regions of Germany and Austria below the above mentioned line later remained Catholic, while north of this line civilization developed much slower and Christianity appeared much later and then of the Arian variety from the East. These northern areas are now essentially Protestant. To return to the 2nd century, however, the Franks, as a loose confederacy of Germanic tribes, developed up to A.D. 200 between the Weser and the Rhine. (Ref. 9, 10)

Emperor Marcus died at Vindobona (Vienna) in A.D. 180 after 8 winters of campaigns on the frozen banks of the Danube fighting against the Marcomanni and Quadi. They were finally destroyed as kingdoms in A.D. 165 about the time that the Lombards (also Longobards) began their first raids down into Roman territory and they never were quite conquered by the Romans.

WESTERN EUROPE

In Spain, although Romans built roads for their legionnaires, it was still far cheaper to carry wheat by ship from Syria to Andalusia than to carry it overland from south to north Spain. The south of this country was the most prosperous, growing wheat, grapes and olives. At the end of the century Spain was invaded by Moors from northern Africa.

Gaul (France) was ruled completely by the Romans but again at the end of the century there were rumblings of Germanic tribes pushing against the eastern barriers into Gaul. (Ref. [11](#), [12](#))

All of western Europe, including England and Wales, enjoyed an era of law and order and peace under Roman rule. The Hadrianic frontier was generally maintained in Britain by the legions, modified only by the conquest of southern Scotland in A.D. 142. The complete annexation of Scotland was attempted from time to time but always failed because the legions could not supply themselves in such a sparsely populated country. In addition the Picts had become a force to be reckoned with. In the last few years of their independence they had finally united under the stimulation of savage battles against the Scots and Norsemen. Emperor Hadrian, feeling that Caledonia was not worth the potential loss of men if it was to be conquered, built his great wall (A.D. 122) 70 miles from sea to sea, with a causeway of stone, forts, camps and signal towers, from the Solway firth to the northeast. Because of constant barbarian attacks on the wall, however, the Romans later advanced their frontier and built still another wall, Antoninus' (A.D. 140), between the Forth and the Clyde. This one was 39 miles long and had 20 forts. (Ref. [13](#)) The Roman port of Dover, protected by two great lighthouses, helped keep immense trade going to and from England. Vessels bringing jars of wine, oil and fish-paste came from Spain and Italy, while tableware was brought from Gaul. (Ref. [14](#), [15](#), [16](#), [17](#))

In Ireland the ruler of Connacht, Conn, formed a large kingdom about A.D. 150 but neither he nor his successors could manage to unify the entire country.

SCANDINAVIA

The Scandinavian tribes had considerable trade with the Roman world, chiefly through the Marcommanic kingdom in Bohemia and after the annihilation of the latter late in the century, the quality

and quantity of goods imported into the north declined considerably. In A.D. 150 Ptolemy, the Egyptian scientist wrote about several far northern tribes, including the Goestoi (also Gautor and Geatas) and the Chaideinoi, who were probably the Norwegian Heidnir. (Ref. 18)

EASTERN EUROPE

An older name for the Balts was Aistrians, taken from Aestiorum gentes, mentioned by Tacitus (A.D. 98). Sometime near this 2nd century these Balts separated into Lithuanians, Letts (Latvians), Old Prussians, Curonians, Semigallions and Selonians. The east German Goths who had been building up a population pressure along the Baltic for two or more centuries particularly about the mouth of the Vistula, about this time moved south to the Carpathians and the Black Sea, dominating all the people with whom they came in contact. Once inside Russia these people, then called "Ostrogoths" (East Goths), soon formed a kingdom of their own and rapidly began to spread still farther along the river systems. Along the Black Sea they abutted against the Iranian Roxolani (also Rhoxolani) branch of the Samartians, who were the successors to the Scythians in this area. (Ref. 19, 20, 21)

The territory between the Black and Caspian Seas was occupied chiefly by the Irania Alans, closely related to the Samartians. Just south of these Alans the old Caucasian kingdom of Iberia remained as a Roman protectorate, although those ancient people were only nominally subservient to Rome. Otherwise, in more central Russia, the Slavic people continued to live and expand unobtrusively, while in the far north the Finns-Lapps continued their sparse existence. (Ref. 22)

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Europe: A.D. 201 to 300

EUROPE

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS | GREECE | UPPER BALKANS

This entire area was an integral part of the Roman Empire and was administered in three parts: The Dacian diocese, comprised of eastern Yugoslavia, western Bulgaria, Moesia Superior, Dacia and some smaller areas; the Macedonian diocese consisting chiefly of Greece; and the Thracian diocese, which was made up of eastern Bulgaria and the European part of Turkey, which in turn, included Lower Moesia, Scythia, Thrace, etc. Of these only Dacia used the Latin language, while the others all spoke Greek. The Goths arrived in the Black Sea area by A.D. 214 and soon occupied all the region west of this sea, splitting into two divisions, to be known as Ostrogoths (East Goths) and Visigoths (West Goths). They battled the Romans in this area throughout the century and the Roman Emperor Decius was slain by them in Dacia as the Romans withdrew in A.D. 275 to safety south of the Danube. Many native Dacians took to the hills with their Latin language, to reappear centuries later as ancestors of the modern Romanians. Gallus, a former legate of Moesia (chiefly the area of Bulgaria), became emperor of Rome in 251. In 268 Claudius II (Gothicus) became the first of a series of emperors from Illyria. They were a capable group and prepared the way for Diocletian. (Ref. [1](#), [2](#), [3](#))

ITALY

Although already diminished by some severe pestilence, the population of Rome at the beginning of this 3rd century was at least

one million. An epidemic hit again between 251 and 266, with 5,000 dying each day at its peak in Rome and with the rural populations also heavily affected. The disease may have been either measles and/or smallpox. Civil disorders and barbarian invasions simply added to the problem. Vacancies within the legions on the Roman frontiers, caused by deaths from disease and mutinies, resulted in invitations to the barbarians to both enter the legions and settle the lands. Rapid die-off around the entire Mediterranean hampered commerce and diminished the flow of cash to the imperial treasury and this resulted in no pay for the soldiers, thus further mutinies, military uprisings and civil wars in outlying areas. (Ref. 4) Armies in different provinces tried to set up their own commanders as emperors (the "Thirty Tyrants"), but this situation was eliminated between 268 and 284. Of course almost constant war with the powerful Persians in the east did not help and a succession of emperors of anarchy came and went, usually by murders. The resources of the rich were consumed by war and by the government. The menial work of Rome was performed by about 400,000 slaves, with even middle class citizens owning about 8 and the rich from 500 to 1,000. (Ref. 5)

The eastern part of the empire was momentarily saved in name, if not in truth, by Odenathus and Zenobia, as we have reported in the section on THE NEAR EAST. Gaul had revolted and assumed its own autonomy under first Postumus and then Tetricus. Aurelian, emperor from 270 to 275, however, temporarily restored Gaul, Spain and Britain to the fold and built the existing walls of Rome as a protection against future incursions by barbarians. To keep the expanding poor of Rome reasonably happy, Aurelian added free pork-fat and wine to the "Annona", as well as giving bread instead of just grain. In order to pay troops, the government gradually debased the silver currency and along with devaluation this culminated in rapid inflation. Increasingly slaves were used in all capacities, even in positions of dependent management of farms, shops, ships and banks. (Ref. 6)

The whole Roman realm had a short period of peace under one of the Balkan emperors, Probus, until his troops murdered him in 282. Then Diocles, or Diocletian, a man of genius and statesmanship became emperor and reorganized the empire. A native Illyrian and Dalmation soldier, he abandoned Rome and made his headquarters at Nicomedia, a few miles south of Byzantium in Asia Minor. He

delegated control of the western half of the empire to his general, Maximian, as co-ruler in the city of Ravenna, Italy, and then made extensive political reforms including the division of the empire into four major prefectures and then forming further subdivisions as dioceses and finally provinces. (Ref. 7) At that time the empire was said to have 435,000 men under arms, chiefly infantry. Finally Diocletian, falling prey to the common curse of ancient men of power, claimed that he was the earthly embodiment of Jupiter, while Maximian consented to be Hercules. This identification of god and king meant the final failure of republican institutions of antiquity and a reversion to the forms and theories of Achaemenid and Egyptian courts. From this orientalized monarch came the structure and form of Byzantine and the European kingdoms until the time of the French Revolution. All that was needed now was to ally the oriental monarch in his oriental capital with an oriental faith. Byzantinism began with Diocletian. (Ref. 8, 9)

CENTRAL EUROPE

As the Germanic tribes migrated westward, behind them the Slavs began to cross the Elbe and filter into modern Bohemia, Moravia and parts of eastern Germany. The Marcomanni, who were already in this area, raided westward and southward, even into Italy itself. The Frankish tribes invaded across the Rhine and along with the Alemanni also attacked directly into Italy. In battles from A.D. 270 to 275 the Emperor Aurelian finally stopped these invasions and held the Germanic tribes essentially at the Rhine once again. In the Pannonian diocese, which included most of Austria, Hungary and the western edge of Yugoslavia, the Asding branch of the Vandals had replaced the Iazygians as the dominant element in the southern portion, while the Gepids (related to the Goths) occupied the north. (Ref. 10, 11)

WESTERN EUROPE

Spain became a large scale producer of wine, olive oil and other products, including a delicious fish-paste. Some insurrections in this country, as in other parts of the empire, were eventually put down by Aurelian. Revolt leaders Postumus and Tetricus in Gaul were also eventually defeated. In Belgium the Franks swept the Gaulic Celts into the south, giving rise to the original language barrier with the northern Germanic tongue dominant at that time. In England,

late in the century the pirates were so numerous around the coasts that Carausius, who happened to be a Belgian sailor, was assigned by the Roman authorities to clear the North Sea and the channel of these brigands. He did so, using mercenaries of Germanic and Frankish origin. But he made enemies in Rome and was murdered in A.D. 293 by his finance officer, Allectus, who then kept England independent of Roman control for three years, until Constantius Chlorus re-conquered the area using a new navy and fresh troops. (Ref. [12](#), [13](#), [14](#), [15](#))

SCANDINAVIA

In this area the most significant change from recent centuries was the replacement of all Lapps and Finns in Denmark by Germanic tribes by A.D. 250. Included in the latter group were the definitive Danes. Roman coins of the 3rd century have been found on Iceland, presumably taken there by the Roman Emperor Constans who sailed in pursuit of Celtic pirates who had raided Wales and then led their pursuer to an arctic island.

(Ref. [16](#), [17](#))

EASTERN EUROPE

Traveling from north to south in this region, we would find Finns in the sparsely settled far north, but south of them going from west to east along the Baltic, we would find first the Balts, then a large area of Slavs and finally, just north of the Black Sea, various Iranian tribes, including the Roxolani and Alans. By A.D. 300 the Ostrogoths had expanded eastward across the Ukraine to dominate the Roxolani, but otherwise there was not much change throughout this century with the possible exception that there may have been some Turkish-speaking Hunnish people already drifting into this area. (Ref. [18](#), [19](#))

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Europe: A.D. 301 to 400

EUROPE

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

At the end of the century Crete and most of the Cyclades passed from Roman to Byzantine control. (Ref. [1](#))

GREECE

Greece remained an integral part of the Byzantine Empire and in this period was intimately connected with the activities of the upper Balkans. After the Visigoths were victorious at Adrianople in 378 they subsequently tried to settle in Greece (396-399) but after the Athenians paid them a large ransom, they wandered back north and west toward Italy.

UPPER BALKANS (Please also see RUSSIA and ASIA MINOR, this chapter)

There was much migratory activity and inter-tribe fighting in the Balkan area. The Ostrogoths had suffered a military defeat on the Dniepner by the Huns and as they retreated westward they in turn pushed the Visigoths ahead of them. One group of the latter, under Athanaric, went on into Pannonia (Hungary) while a second group under Fritigens appeared on the lower Danube and asked Emperor Valen's permission to enter Dacia. The request was granted but famine in 377 resulted in the Goths raiding south.

Joined by some Ostrogoths, some *federati*, renegades and later even some Huns and Alani, they crossed the Danube in 378, killed Valens and annihilated two-thirds of his troops. The Goths then ravaged the Balkans from end to end. Separate peace treaties with

various Gothic groups were forged between 380 and 381 and many other Goths individually or in groups eventually joined Roman forces. The original Visigothic troops had been thinned by epidemics and desertions. In 384 or 385 Huns crossed the frozen Danube and raided down the west shore of the Black Sea and in 386 struck both east and west of the Goths' area on the Danube. The Ostrogoths defied their Hun overlords, striking violently in great numbers from the east, but even so, by 392 the Huns were raiding through the Balkans, not under a single king, but as individual tribes.

At the end of the century there were three powerful groups prowling through the Balkans. We have mentioned in an earlier paragraph that as the dead Theodocius' troops returned from Italy they raided through this area up to the walls of Constantinople. The Visigoths, after raiding Greece went to Epirus on the Adriatic and renewed an alliance with the eastern Roman government, and as just noted above, the Huns were foraging into the area from the east. (Ref. 2, 3)

Although a proto-Germanic tongue was probably spoken simultaneously with Sanskrit, early Greek and other early languages, the Gothic translation of the Bible by Bishop Ulfilas in this century is the earliest satisfactory record of a Germanic language. Having been taken to Constantinople in his younger years as a hostage, he mastered Latin and Greek, invented a special alphabet on the Greek pattern and returned to his Visigothic people on the lower Danube preaching the Arian creed which then spread throughout the Germanic tribes. His Bible is virtually the only source of knowledge of the original Gothic language which sired all the Germanic tongues, including Runic. (Ref. 4)

ITALY

In the western Roman Empire there was a complex picture of recovery and decline, literary activity and sterility, political pomp and military decay. Gaul's 20,000,000 people prospered and threatened Italian leadership in every field. There were 6,000,000 Italians while in the empire there were another 44,000,000 Greek-speaking orientals and Rome, itself, was an oriental city with a great middle class now weakened by economic decline and rising taxes. Among both pagans and Christians alike there was an immorality rarely known in history. Until the last third of the

century the western emperors were military men who kept strong holds chiefly through their armies. These included Julian, who as a Caesar, had fought the Alamanni and Franks in 355 and then marched against Emperor Constantius of the East, to become emperor overall in 360. He was succeeded almost immediately in the west by Valentinian I and then by Gratian (367-383), a bookish adolescent who lost control and the barbarians soon crashed through the borders. Initially Gratian had served as co-emperor with his father Valentinian but upon the death of the latter he was joined by his half-brother, Valentinian II.

Magnus Maximus usurped the emperor's army and murdered Gratian in 383 and then ruled the western empire with the child emperor Valentinian assisted by the boy's mother, Justina, and a pagan general Bauto, a Frank. In 387 Maximus' army was needed to repel barbarian invaders from Pannonia and he took the opportunity to also swoop down and take Italy itself, running Valentinian II and his mother to the East. This was the time when the eastern Emperor Theodosius marched with an eastern army chiefly of Gothic mercenaries, and defeated and killed Maximus in 388. Arbogast, a German and pagan was then the chief minister to the restored Valentinian II, but conflict soon developed and the emperor was killed or committed suicide. Thus, in 392 Flavius Eugenius, a nominal Christian, but having pagan sympathies, became emperor. He also was defeated in northern Italy by Theodosius in 394 and paganism as a political force almost disappeared. The son of Theodosius, the child Honorius, was set up to rule under the administration of Stilicho, the son of a German officer and husband of Theodosius' niece.

All historians are pretty well agreed on a certain sequence of events which led to the fall of the western Roman Empire, this including the western movement of the Huns, who in turn, put great pressure on the Germanic tribes, who in turn, then invaded the empire which was already decaying from its own inadequacies and problems. But each historian may have his own concept of the relative importance of each of these factors in the down-fall. There are those who think that the "barbarian" advance was the major factor, and there is no doubt that the Germans had already heavily infiltrated the ranks of the Roman army, particularly the cavalry units and the lesser officialdom. Furthermore, the German soldier had a better sword, made of better steel. Richard Lewinsohn (Ref.

5) insists that the horse brought the collapse of the empire. Cavalry had always been a neglected part of the Roman army and in Rome, the horse was more a symbol of affluence than of real power. The mounted troops of the barbarians cut the Roman legions to pieces and cavalymen became the conquerors and for 1,000 years retained mastery over Europe.

Others were more concerned with the internal problems of Rome, itself. Throughout its history, the imperial frontiers were closely aligned with the borders of the wheat growing regions of the classical world and now much of this wheat growing area was otherwise occupied. Egyptian wheat now went to Constantinople; southern Italian agriculture was declining and losing out to African and Spanish competition, so that the west was caught in the spiral of dwindling revenue and increasing exactions. Inflation was a tremendous factor. Even in A.D. 302 Diocletian had inflicted the death penalty for any infringement of fixed prices which he had established in an attempt to present further inflation. (Ref. 6) Even so, a measure of wheat for which the Romans had paid six drachma in Egypt in the first century C.E. cost two million shortly after A.D. 344. This resulted in a subsequent drift back to a barter economy of a thousand years earlier and helped to ruin not only international trade but the western empire as well. About A.D. 350 there were 120,000 people who received six half-pound loaves of bread free, daily, from the government.

By this time Rome had 12 aqueducts, largely underground, feeding 352 fountains. One tunnel, taking water from Lake Fucino in the Apennines, was 3 1/2 miles long. As the empire fell, however, there were no longer slaves to care for this system and the fountains became dry. (Ref. 7) Perhaps scarcity of both food and water were very important in the decline of Rome' There is still another emphasis by Kenneth Clark (Ref. 8) - "So if one asks why the civilization of Greece and Rome collapsed, the real answer is that it was exhausted." "The late antique world was full of meaningless rituals, mystery religions that destroyed self confidence. And then exhaustion, the feeling of hopelessness which can overtake people even with a high degree of material prosperity."²

Of course the Greek-speaking eastern realm survived to become the Empire of Byzantium. Part of the success of this eastern part was due to its urbanization and the West's failure to urbanize had made

that area less easy to tax and more expensive to administer. Failing to collect taxes, the military could not be paid. Furthermore, the government's price-fixing had made many professions profitless and its attempts to avoid the economic consequences of such by making the practice of such professions obligatory and liability hereditary must have created many white-collar outlaws. We have already mentioned that a sizeable portion of the masses were slaves³ who had a low reproduction rate and there was a high death rate in the urban people from pestilence. A plague which may have been anthrax reduced the empire's population by 5% early in the century. Caught in the spiral of dwindling revenue and increasingly demanding exactions and inflation, the West was doomed. (Ref. [10](#), [11](#), [12](#), [13](#), [14](#), [15](#), [16](#))

By the end of this century, although written Latin had not changed its appearance, spoken Latin had developed a new sound pattern. Stressed vowels were drawled; unstressed vowels were dulled, weakened and often dropped. As the great civilization which had been unified by the Latin language collapsed, what Freeman Dyson (Ref. [18](#)) calls a "clade" of new Latin-derived languages - French, Spanish, Italian, Portuguese, Romanian and a few lesser ones, grew and developed in relatively rapid fashion. At most, 20 generations separate unified Roman Europe from the Europe of well-established local languages. (Ref. [19](#), [20](#))

CENTRAL EUROPE

This century saw the beginning of "Die Völkerwanderungen", meaning "peoples' migrations". The Alemans were on the upper Rhine while the Angles, Saxons, Jutes and Frisians were along the North Sea. The Vandals, related to the Goths, were on the upper reaches of the Oder River moving (or perhaps being pushed by Goths) from the area of modern Prussia and possibly Denmark, south to the Danube in the area of Pannonia, a portion of modern Hungary. The Lombards lived between the Oder and Vistula in modern Poland and also on the lower Elbe in Germany. The Burgundians drifted westward to the Main River and the Thuringians held their ancient, central position in Bavaria and northward. All these tribes for the most part were antagonistic to each other.

In the early 370s Ostrogoths, led by Athanaric, migrated from the

Balkans into Pannonia and after the Fritigen led Ostrogoths had their great victory at Adrianople, they also plundered Pannonia. The Huns were following closely and they set up camps in Pannonia also by 378, enslaving the Gepids (related to the Goths) in the process. The Huns with their flocks now occupied pasture land extending from the Caspian Sea to Hungary. In 383 Juthungi Germans invaded Austria, perhaps with permission of Maximus, but in 384 Hunnic horsemen rode through them on their way to Gaul. General Bauto, of the Roman forces, persuaded the Huns to attack the Germans and they obligingly crushed them in one great sweep before continuing on toward Gaul. Bauto then apparently got nervous about their advance and bought off the Huns with gold and they retreated to their base in Hungary. Thereafter individual Hun tribes pillaged Hungary at will. By 396 a group of Visigoths, headed by Alaric, had settled in Illyrium, the western part of present day Yugoslavia. (Ref. [21](#), [22](#), [23](#)) In Bohemia the Germanic tribes were slowly being pushed west throughout all these early Christian centuries by the Slavs, moving in from Russia. Switzerland remained quiet under the Roman yoke.

WESTERN EUROPE

SPAIN AND PORTUGAL

The Iberian Peninsula remained under Roman rule, but somewhat restlessly and occasionally the emperor had to send out expeditionary forces to put down uprisings of rebellious peasants. The Catholic church was recognized to be on equal footing with other religions, but there were many local heresies. By the end of the century there were about 9,000,000 people in this area. (Ref. [24](#), [25](#))

FRANCE AND NETHERLANDS AND BELGIUM

The Gauls of France now numbered about 20,000,000 and had reached a high level of civilization and scarcely rated the title of "barbarian" at this time, although many have labeled them as such. They, in turn, were now having pressure put upon them by new barbarians of the Teutonic variety. A competent general, Emperor Julian, had defeated the last Franco-Alemannic invasion of France, although he allowed some of the Franks to settle in Belgium, keeping their tribal organization while bowing to Rome (A.D. 358).

The term "foederatii"(FOREIGN) was used to describe such tribes. By the end of the century the Salic Franks expanded out of Belgium, moving to the southwest and occupying the region between the Meuse, the ocean and the Somme. The origin of our word "enfranchised" is from this ancient tribal name of Frank, which meant "free". The Frisians, who were the main power on the North Sea, were friendly to the Romans through this period. (Ref. [26](#))¹

¹

Using the water in the Massif Central of the area, they used overshot, vertical water mills, using water channeled into bucket-like containers built into the circumference of wheels 2.2 meters in diameter, with the weight of that water turning the wheel. Sixteen wheels used in pairs on eight terraces produced a total of about 8 Horse Power for the adjacent flour factory, which in turn, produced enough flour for Arles, with a population of 80,000. (Ref. [27](#))

BRITISH ISLES

Of all western Europe only Ireland and Pictish Scotland remained completely free of the Roman yoke. The population of Romanized Britain was 1,000,000 or more, with little numerical change since the time of Cassivellaunus. The British lived better as Roman citizens, however, than ever again until about 1900. The wealthy had central heat and warm baths, both of which were nearly absent again in Britain from A.D. 400 to 1900. In this 4th century cities had begun to decline, but country villas still flourished, as did the Roman capital of London. There was no new science, no new thrust of power until A.D. 367 when Picts, Scots, Franks and Saxons, as the great "barbarian conspiracy" joined in a maritime raid on southern England, at about the same time as other Picts attacked and flanked Hadrian's wall in north England. Finally Count Theodosius defeated the raiders, using large detachments of Germanic mercenaries, as well as modifying both coastal and inland defenses. Archeological findings now indicate that as the Germanic mercenaries were brought in, there were already separate Saxon forces, perhaps living among the locals as a sort of peasant militia, and thus gradually the defense of Britain began to rely upon these foreigners. At the end of the century, Ninian, a British chieftain's son, went to Rome and was made a bishop, after 15 years of study.

(Ref. [28](#), [29](#), [30](#), [31](#)) In Ireland, after 700 years of Belgic and other Brythonic Celtic migrations the Brythonic kingdom of Tara (Mide) was now supreme, but by the end of the century all the Irish had relapsed to the older Gaelic dialect. It was at this time, probably, that the Irish started to use the primitive Ogam alphabet of lines and dashes. Herm (Ref. [32](#)) says that these Irish invented Ogam, but others seem to have demonstrated that it was in use in Spain and Portugal many centuries previously. (Ref. [33](#), [34](#))

SCANDINAVIA

Archeologists have called the first four centuries of the Christian era in Scandinavia the "Roman Iron Age" even though no Romans appeared in the north. The people were chiefly agriculturalists or seamen, illiterate and pagan but they already had extensive trade with Romans and the Mediterranean, exchanging furs, skins, robes of seal-skin, dairy produce and cattle for silks, gold, wine, jewelry, glass bowls, etc. They lived in large halls or houses, raised summer wheat, barley and rye. Their boats were of all sizes up to 75 feet long and they were propelled by oars. The areas of Swedes, Norse, Danes, Jutes and Angles were already quite well delineated. (Ref. [35](#), [36](#))

The Gothic language was well established and writing began to appear in the system of runes, with 24 clumsy characters brought from the continent and changed by edging to adapt the characters to wood. (See also next chapter, please). After Constantinople became the Roman capital, Denmark found her trade in the south had been transferred eastward to the Baltic and via Russian rivers on to the south. Islands in the Baltic, such as Gotland and Bornholm, thus became trading stations en route and at the same time worth plundering. (Ref. [37](#))²

2

The largest piece of amber sent to Rome weighed 13 pounds. Even a few Latin words found their way into the Scandinavian tongues. One was leather, there were several meaning "trader" and "caupo", which was the ultimate source of Kobenhavn and Linkoping. Before the Roman Iron Age the chief method of disposal of the dead was cremation, but gradually this changed in some areas to inhumation. In this 4th century villages became larger, as well as the individual

houses. In one 500 square kilometer area of north Jutland there were at least 46 settlements. Forests were reduced as wood was used for buildings and fuel. It was a period of remarkable expansion in Denmark as well as in southwest Norway, southern Sweden and Gotland. In Denmark, eastern Sjaelland seems to have become an important center of power-a chieftdom. (Ref. [38](#))

EASTERN EUROPE

BALTIC AREA

We have just mentioned the new importance of the Baltic islands in trade between Scandinavia and the Byzantine Empire. On the south shore of the Baltic, the Germanic tribes migrated and changed positions. For example, the Lombards were partially in eastern Germany and partially in Poland, but late in the century almost the entire area was at least governed by the Ostrogoths under their great leader, King Ermanarich, who extended his realm back from the Black Sea to the Baltic, largely at the expense of the Slavs, some of whom fled northward among the Finns and preserved their freedom. (Ref. [39](#))

RUSSIA

In the far north some Finns remained with a large contingent of Slavs crowding northward in the western portion. Visigoths (Tervingi) and Ostrogoths (Greutringi) lived on both sides of the Dniestr. The latter were ruled by King Ermanarich in an organized group while the Visigoths had a looser political situation and an alliance with Rome, after 332. Large numbers of these Goths had already been won over to Arian Christianity by the heretical missionary, Ulfilas. The Don River originally separated the Ostrogoths from the Iranian Alans to the east, but sometime in the early part of the century these Alans attacked the Ostrogoths, starting their collapse as a political entity. From the east the Huns had advanced into Russia north and west of the Caspian Sea, crossing the Don and overcoming many of the Alans and attacking the almost civilized Ostrogoths in the Ukraine. Along with many of the Alans, part of the Ostrogoths joined the Huns while others fled west and south to join their cousins, the Visigoths. The latter, under Athanaric, fought the Huns on the right bank of the Dniestr but could not hold and retreated west, ten thousand strong, encamping

eventually just north of the Danube. The Huns now ruled a large area of south Russia and stood at the mouth of the Danube, about A.D. 370. A fragile Hunno-Alanic alliance lasted about 30 years. Judging from the names of some of the tribes overrun by the Huns at the northeastern shore of the Black Sea, other Turkish tribes must already have been in this area and some of these may also have joined the Hun hordes as they went west⁴. (Ref. [40](#), [41](#))

In the Caucasus region Lazilia and Iberia were two kingdoms of the ancient Georgians which had been pretty well Christianized under Roman suzerainty but the more primitive Abasgians, also of Georgian stock, remained heathen and outside Roman jurisdiction. As detailed on pages 358 and 369 the Huns went through the Caucasus on raids to Persia and Mesopotamia and on their return they may have brought some two-humped, Bactrian camels with them to the Ukraine. (Ref. [42](#), [43](#), [44](#))

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1. Goth mercenaries previously with imperial units
2. Quotations from Clark (Ref. 9), page 4
3. Christian emperors still ordered the execution by crucifixion or burning of slaves who brought accusations against their masters, without trial. (Ref. 17)
4. For comments concerning the original group of Huns, see page 331, and for detailed information concerning their lives and characteristics, see the section on HUNGARY, 5th century C.E.

Europe: A.D. 401 to 500

EUROPE

This is usually considered the beginning of the European Middle Ages and it was a period of warming climatic change. (Ref. [1](#)) The towns of the Roman Empire had been declining even before the arrival of the "barbarians", but now, with the end of the empire, the West truly lost its urban framework. (Ref. [2](#))

SOUTHERN EUROPE (See also TURKEY and CENTRAL EUROPE)

EASTERN MEDITERRANEAN ISLANDS

Most of these islands were under Byzantine control and both science and literature flourished, particularly on Rhodes, in these early Christian centuries. (Ref. [3](#))

GREECE

Greece was submerged in the affairs of Constantinople. The only unique feature was a raid on the coastline by Vandals from their bases in Africa at the end of the century.

UPPER BALKANS

In the early part of the century the area of present day Yugoslavia was part of the Visigoth kingdom and after the Goths were defeated while invading Italy in 402 and 403 by Stilicho, they retired again to that region. In this same area and in northern present day Albania the last real western Roman Emperor lived from 476 to 480, isolated in the old Roman province of Dalmatia. Meanwhile in the western part of the upper Balkans, Slavic tribes first settled in what is now Bulgaria with the Bulgars (probably a mixture of Huns

and other nomads) right behind them. The Black Huns, probably encouraged by the warming European climate which made fine pasture land for their horses, raided throughout the Balkans and ruined the area for some three centuries to follow. They had arrived about A.D. 400 under their ruler, Uldin, who proceeded to lead them into Thrace on raids in the winter of 404-405. This happened again in 408, 422 and several times in the 430s. In 441 Illyrium was the target. Resumption of Balkan raids in 442 brought big tribute concessions from the Byzantine emperor, Theodosius. When he later reneged on the payments Attila himself led a great Hunnic invasion of Thrace in 447 and it cost the emperor still more in gold payments. (See **TURKEY**, above)

Ahead of the Huns had come Slavic peoples, some from the so-called eastern Slav groups, but chiefly from the western Slav tribes and these settled to become the ancestors of the Serbs, Croats, Slovenes and Macedonians. The Huns, themselves, had actually settled in Hungary, but made their periodic raids back into the Balkans as noted. During their various invasions and raids, many of the Hun soldiers took native women as wives, thus putting Asiatic blood from the Black Sea to Bavaria. After A.D. 455 there were only two pockets of Huns remaining in the Balkans - one in a portion of modern Bulgaria along the west shore of the Black Sea and the second in Dacia, -somewhat west of the first group. In 465 these Huns attacked the Goths who were in Pannonia, but they were defeated. A second Gothic-Hunnic War developed south of the Danube in 465. (Ref. [4](#), [5](#), [6](#), [7](#))

ITALY (Please also see **TURKEY, THE BALKANS, and CENTRAL EUROPE)**

At the beginning of the century the weak Roman Emperor Honorius put the Vandal, Stilicho, in command of the army of the West and he was immediately put to test by invading Alans and Visigoths. Stilicho defeated them using Vandals and even some Alanic mercenaries in two great battles in 402. There were several other invasions by Alani, Vandals and Goths in the next few years, during which time Honorius moved his court to Ravenna, supposedly out of harm's way. In the early battles, Stilicho had to strip the Rhine frontier of troops so that in the following years a new coalition of Ostrogoths, Quadi and Asding Vandals, along with a clan of Alans who had fled from the Hun-dominated Caucasus, moved west

almost unopposed and crossed the frozen Rhine into the now almost defenseless France. Stilicho was executed by his own emperor in 408, thus opening the gates to King Alaric and his Visigoths, who now left Yugoslavia, entered Italy and by 410 had sacked Rome¹. Alaric died shortly thereafter and Athaulf became king of the Visigoths as they moved to Gaul in A.D. 411.

Upon the death of Honorius in 423 the Emperor Theodosius II of Constantinople became the sole ruler of both East and West. The usurper John was proclaimed Western emperor by the Ravenna court in 424 but Eastern armies under the Alan General Ardabur and his son Aspar, defeated the forces at Ravenna, executed John and made Valentinian III the emperor. John had expected help from 60,000 Huns who had been recruited in Pannonia by Aetius, but they arrived too late and were sent back. From this time on the military had the greatest power and used increasing numbers of Germanic and Hunnic auxiliaries. Aetius became the senior general in 430. Under Emperor Valentinian III, Leo I, surnamed the Great, became the Bishop of Rome and in essence the Pope of Western Christendom. By courage and statesmanship he raised the Apostolic See to new heights of power and dignity and we should note that this, in effect, marks the beginning of the very definite separation of the head of the western Christian Church, soon to be known as the Pope, from the few remaining weak Western Roman emperors. For the record these emperors are as follows:

- 455 - Petronius Maximus
- 456 – Avitus
- 457 - 461 Majorian
- 461 - 465 Libius Severus
- 467 - 472 Anthemius
- 472 - Olybrius
- 473 - 474 Glycerius
- 474 - 475 Julius Nepos
- 475 - 476 Romulus Augustulus. End of the Roman Empire, West

To return to our narrative, in 440 the Vandals landed in Sicily and in 452 Attila invaded Italy with his Huns. After plundering Etruria, however, he retreated because of famine and epidemic and apparently some gold payment from Rome. General Aetius was murdered in 454 by Valentinian III and his associates, but then the

emperor himself was murdered a year later and the Vandals attacked Rome again, plundering the city for two weeks. No aid came from the East, and the new Emperor Petronius Maximus was killed. The next emperor, Avitus with some allies from Gaul won some victories over the Vandals in Sicily and off Corsica, but then Avitus' general, Ricimer, revolted and deposed the emperor. But Ricimer was a German and could not become emperor, so Majorianus assumed that role. He built a navy and beefed up the army with Ostrogoths and restored some vestige of imperial prestige in Gaul. But he was decapitated by the wily Ricimer after loss of a sea battle off the coast of Spain. The Western Roman Empire was now in poverty. In this one century Rome shrank from a population of 1,500,000 to 300,000 as Italy was invaded six times. Finally in the sixth decade of this century the Eastern emperor, Leo I (not to be confused with the Bishop of Rome), decided to help defend Italy against the Vandals and sent a large eastern army and fleet to join with the western Emperor Anthemius' forces. In 468 an army of 100,000 and navy of 1,100 ships still lost to the Vandals.

As indicated above, the line of Western Roman emperors came to an end and Zeno in Constantinople had jurisdiction over all. The Germans who had been brought into Italy in ever increasing numbers now, as a result of their multiplication and intermarriage, became a very prominent faction in Italy. Within 20 years southern Gaul, Dalmatia and Italy were all German kingdoms. Odoacer, the son of Edecon, a minister of Attila but himself from German tribe under Attila's rule, governed Italy as "Patricius", under the distant Emperor Zeno. The latter soon became afraid of the power of Odoacer and actually encouraged the Ostrogoth King Theodoric to invade Italy. After four years of war, from 489 to 493, Theodoric became master of an enlarged new Gothic-Italian kingdom with a court at Ravenna. The Ostrogoths were Arians and this religious heresy situation became a part of the civil wars that disrupted the political unity of the empire. (Ref. [9](#), [10](#), [11](#), [12](#))

Still unconquered, the Vandals controlled western Sicily and Sardinia as part of their north African kingdom throughout the remainder of the century.

CENTRAL EUROPE (See also TURKEY, THE BALKANS and

ITALY)

GERMANY

"Germanic" is a designation of a great many tribes who spoke related Germanic languages. Several, such as the Saxons, East Franks and Alemanni eventually settled in the region between the Alps and the North Sea, the Rhine and the Bohemian mountains and their languages gradually evolved into modern German. Others, settling in Scandinavia, England and along the channel laid the foundation for such modern languages as Swedish, Norwegian, English and Dutch. Germany, in this 5th century, was a sea of slowly changing and migrating people. The Huns were pushing in from the east, driving a Slavic people before them who settled in what is now eastern Germany, as Wends and Poles. The Huns themselves veered to the south through what later became Austria-Hungary and then pushed on into Bavaria and to the Rhine, engaging in a tremendous battle with Romanized Visigoths at Troyes in 451. The effect of these migrations and raids was to push the original Germanic tribes west and south with the Vandals, Suevi and Alani ending up in Spain. The Huns decimated the Burgundians with the remnants settling as "federates" near Geneva. (Ref. [13](#), [14](#), [15](#))

By the last of the century, the Franks were well established on both sides of the Rhine in a large area including parts of both modern France and Germany. In 481 Clovis became king of all the Franks and formed the first of the large, central European monarchies. When he adopted Christianity about A.D. 500 his western Frankish followers readily joined his conversion, but east of the Rhine there was not a pre-existing local Christian population and the Rhenish Franks remained pagan. At this same time the Marcomanni left Bohemia and invaded Bavaria. (Ref. [16](#), [17](#), [18](#))

AUSTRIA

For awhile Austria was on the march route of the Huns and we shall discuss these people more in detail later. After Odoacer (See ITALY above) annihilated the Rugier tribe in 488 the Lombards moved down into northern Austria and southern Moravia. Vindobona (Vienna) remained as a fortress and apparent sanctuary to all of Celtic-Roman descent. Rome had completely withdrawn from the Danube area by 488 and the vacuum was filled by the Huns. (Ref.

HUNGARY

By 406 the Huns were in eastern Hungary with Ostrogoths just to their west and Lombards and Rugiers in the Czech area just northwest. At this time Uldin was ruler of the Huns in Romania and after making an alliance with Stilicho in 406 together they defeated a wave of Goths invading Venetia and Lombardy, with the captives taken to be sold later into slavery. There were no Alans in Hungary after about this date and thereafter the Huns dominated the area. Very little is known about them in the 2nd decade except that they had a King Charaton who received gifts from Honorius of the Roman Empire. The climax of Hunnic power came after 420 but in 427 they were attacked by Romans and some were conquered so that as a people they lost cohesion and had no central authority. By 432 Ruga was king of some of the Huns, but his exact territory is unknown. The East Romans waged war against him until his death in the late 430s. The Huns then had two kings - Bleda in the east and Attila in the west. These men were apparently brothers and their forces together broke into Illyrium in 441. In 445 Attila murdered his brother, however, and became the sole ruler. Four years later he met with East Roman ambassadors just over the Illyrium border on Italian soil and Attila was made a "military magistrate" and given land along the Sava and a yearly salary. In spite of this he raided Italy in 452 after a relatively unsuccessful invasion of Gaul the year before. He was bought off before he crossed the Po, but Milan was taken and much booty found. Disease was probably a big factor in preventing further forays. Attila died in 453 and while his sons were quarreling over the estate a coalition of German tribes led by Ardaric, king of the Gepids, revolted against their overlords and after several battles, defeated the Huns at Nedao River², with allegedly some 30,000 Huns slain, including Ellac, Attila's oldest son. Thus ended the height of the Hun power and although they made a few more raids of the Eastern Empire, they finally returned to the Russian steppe about 470 and settled on the shores of the Sea of Azov. At about 444 Attila had been the most powerful man in Europe and a contemporary of Valentinian in Rome and Theodosius II of Constantinople. He was not entirely a savage but actually had some sense of honor and justice, in spite of the fact that his men at times did pillage and ravage and that he

murdered his own brother. Such atrocities as the latter, however, were common among all ruling families of that time and even much later, in history. (Ref. [20](#), [21](#), [22](#))

Some further description of the Huns and their lives is warranted at this time. The origin, race and language of these people is still in some dispute. Paleo-anthropological evidence indicates that they were a racially mixed group with both Mongoloid and Europoid³ elements. Up until the 1940s the classical concept was that the European Huns were one and the same people with the Hsiung-nu originating in Mongolia on the northern border of China. These definite Mongoloids allegedly moved first to middle Asia and then spread westward. But there were Europoids in eastern Asia and western China also, some of which were conquered and enslaved by the Hsiung-nu. Some skeletons on the borders of China dating to 450-230 B.C. show features of both great races - flat faces of the Mongoloid and yet the wide open eyes of the Europoid. One of the nineteen Hsiung-nu tribes, the Chieh, was massacred in northern Honan in A.D. 349 and the great majority of them were found to be Europoids. The Wu-sun (part of the Jung) neighbors of the Hsiung-nu had cerulean eyes and red beards and were predominantly Europoids. We must conclude that at some point in time a group of these mixed peoples, part Mongoloid and part Europoid, started west through the steppe area to become known as Huns.

We have no written language from the Huns - their scribes were borrowed or enslaved Romans, writing in Latin or Greek. But the Hun aristocracy had chiefly Turkish names, with some Germanic ones apparently borrowed from their sometimes allies, the Goths and Gepids. Many of their names and place names were Latinized by their Latin chroniclers. Many languages were spoken in Attila's kingdom - Hunnish, Gothic, Alanic, Latin and Greek, but it is probable that their native tongue was Turkic, from the Eurasian steppes. The name "Attila" comes from the Gepid "Atta" meaning "father" and his brother's name, Bledas is also German. Other names and particularly tribal names, however, were definitely Turkish.

The Huns were semi-nomadic, keeping all kinds of domestic animals, but essentially living on their horses and off their sheep. From the latter they had mutton, milk, cheese, felt, tents, shoes and caps (curved and pointed). They spun the sheep wool and made linen but agriculture was apparently at a minimum. By Attila's time, Hun nobles had houses with walls of well-planed planks and panels,

containing seats, beds and draperies. They loved gold and extracted extremely large sums at regular intervals from the Romans. In the 440s East Romans paid the Huns about 13,000 pounds of gold and they also received some for auxiliaries lent to the Romans and as ransom for prisoners and through the sale of slaves obtained as prisoners of war. Trade was brisk at times, involving not only slaves but horses in exchange for gold, wine and silk, which was greatly prized by all the "barbarians". The Huns had an aristocracy and they had slaves, although most of the latter were quickly sold to the Romans. Their wharf are was rather typical of all barbarians from the steppes - confined principally to wild cavalry attacks, accompanied by much terrifying noise, lightly equipped but with accurate bows, lances, swords and shields. There is some evidence that the nobles had some types of armor, chiefly scale armor made from horses hoofs, but the commoners often fought naked, a feature which added to the terror experienced by their "civilized" enemies. They appeared to be glued to their short-legged, big-headed, shaggy, long-bodied ugly horses. They had no spurs, but did use whips. The question of whether or not they had stirrups is still not settled. Some nomad barbarians definitely had wooden or even metal stirrups (as the later Magyars) and the Huns wore soft shoes adaptable to round, wooden stirrups and it is possible that they had them. Accurate bow shooting is difficult and lance fighting without stirrups is almost impossible unless the lance is more or less tied to the horse. Saddles with a wooden tree have been identified. Horses were branded and ear-marked for identification and the warrior horses were almost all geldings. Although archeological evidence is scant, it is assumed that the Huns used horse drawn carts for supplies and loot. The stories of their atrocities are legion and most must be looked at somewhat skeptically and they were probably not much, if any, worse than any of the nomadic invaders from the steppes or even the Romans, themselves.

Their bows were reflex, composite⁴ types, 140 to 160 centimeters in length and very accurate up to 50 to 60 meters, with an effective range up to 160 to 175 meters. An unusual weapon of the Huns was the lasso, with which they entangled the arms and legs of the enemy so that he could not ride or walk. The Hunnic shields were probably of wickerwork, covered with leather and there are no archeological remains of these. They did have some art work and many diadems of gold sheet over bronze plaques have been

excavated, along with gold and silver earrings. Hunnic bronze cauldrons are plentiful from Hungary and the upper Balkans.

The contemporary description of the physiognomy of the Huns are undoubtedly influenced by the extreme terror they produced in those about to be attacked, but there is no question but what they were a short, thick-limbed people with flat noses, the latter having been produced in infancy by binding, to deform the developing skull. It has been surmised that this allowed the wearing of a special helmet with a flat nose-piece extension, in later life. In addition, the male's faces were early scarred by intentional knife cuts, so that beards could not grow in the mature, scarred faces. These old healed cuts and scars, with their resulting flat, ugly faces certainly did not detract from the overall impression of the devil incarnate. (Ref. [24](#))

CZECHOSLAVAKIA

About A.D. 400 the Lombards (Langobards) drove from the Elbe eastward and southward, appearing about 430 in Bohemia and later moving into Moravia and Austria. The Rugians crossed the Danube south from Bohemia but were annihilated by Odoacer who had taken over Dalmatia on the death of the Western Emperor in 480. A confederacy of Suevic bands, the Bavarians and Marcomanni now occupied Bohemia. (Ref. [25](#)) The Bavarians, of course, were later to move west into Germany, but the Slavs who stayed and settled permanently in Bohemia were the ancestors of later day Czechs, Vlachs and Slovaks. It was only after the retreat of the Huns that the full extent of the Slav migration would be realized. (Ref. [26](#))

SWITZERLAND

In this century Switzerland was invaded by the migrating Alemanni and Burgundii so that finally the domain of the latter stretched from Switzerland south to the Mediterranean. The Huns then almost annihilated these Burgundians in their westward raids in the middle of the century with the remnants remaining under Roman domination near Geneva. (Ref. [27](#), [28](#))

WESTERN EUROPE

SPAIN AND PORTUGAL

The Franks, Burgundians and Alemanni who had annexed the left

bank of the Rhine, allowed the Alans, Vandals and Suevi to cross the Pyrenees and seize land along the Atlantic seaboard of Spain. They went to the Straits of Gibraltar and some even crossed to the African Coast and the old Romano-Hispanic ruling classes were overthrown. Later in the century, after having made a treaty with Emperor Honorius, about 100,000 Visigoths under King Wallia, successor to Alaric and Ataulf, entered Spain and nearly exterminated the Alans and the Siling Vandals. The Suevi and the Asding Vandals retired to the northwest corner of the peninsula and the northern areas of the Basques was never taken. (Ref. [29](#)) Some of the Vandals retreated to Andalusia in the south, from which they later continued their conquest of North Africa. Finally there were about 200,000 Visigoths against a native population of some 6,000,000, but the former were much more mobile and dynamic and easily controlled Spain. (Ref. [30](#), [31](#), [32](#)) Under Theodoric II (453-466) the Visigoths finally defeated the Suevi at Oporto and then broke with the Roman Empire. Euric (466-484), brother of Theodoric II, completed the conquest of the peninsula, but lost the original Visigothic home base in Gaul to the surging Franks who detested the Visigoths because of their Arianism. (Ref. [33](#))

FRANCE AND NETHERLAND AND BELGIUM

We have seen above (See ITALY) that Stilicho, in effect King of Italy, withdrew troops from the Rhine to fight various Germanic tribes in central Europe and then the Marcomanni-Quadi group, collectively known as Suevi, easily crossed the defenseless, frozen Rhine into France. (Ref. [34](#)) Meanwhile the Franks had settled on the western slope of the Rhine, had captured Cologne and were in Franconia on the east. By 430 Gaul was about half Frankish and half Gothic and Celtic, and it was the most prosperous and intellectually advanced of the western provinces. The agriculture of the Germanic tribes was better suited to that climate than the Roman Mediterranean style of agriculture so a German style of life took its place.

As recorded above, in A.D. 451 Attila and his German auxiliaries, possibly at the request of Gaeseric⁵, the Vandal king, moved far into France to Orleans and after a battle near by against a mixture of Burgundians, Romans, Franks and Visigoths, Attila finally withdrew to Hungary after massive casualties had been experienced by both sides. Only the Salian Franks in the northeast of France, escaped the

Huns domination in the first surge. In 470 the Visigoths again expanded to the Loire and the Rhone and then again conquered Spain, except for a few northern areas, as we have mentioned above. Clovis started his control of the Franks by conquest in 481 and his conversion to Christianity occurred in 496. The Celts on the west side of the Rhine had been exposed to this religion for a long period and Clovis' conversion only solidified his control over them. Although his original territory included only the northern areas about Cologne, Hesse, Tournai, Cambrai and Treier, he soon destroyed other chieftains of the Rhine, Moselle and Meuse valleys. His final mastery over all Gaul began with his defeat of Syagrius, "King of the Romans" at Soissons in 486 and he then became truly "King of the Franks"- (Ref. [35](#), [36](#))

BRITISH ISLES

ENGLAND

Roman evacuation of England was probably complete by 407, and in 410 the Roman Emperor Honorius wrote to the leaders of British towns telling them to look after their own defence. This was almost simultaneous with the revolt of peasants, rampant disease and raids by Picts, Irish, Angles, Saxons, Jutes and Frisians. (Ref. [38](#)) In the 420s Vortigern, one of the British tyrants, rose some in power and used the previously tried Roman policy of using German mercenaries to swell his armies. Others soon did likewise and the fate of Celtic England was probably sealed. There was a continuous influx of new Saxon immigrants and from 440 on they occupied the eastern and southern coastal areas of Essex, Kent and Sussex and controlled the mouth of the Thames. The Angles came from Slesvig and brought with them to England a knowledge of Nordic mythology, as found in the "Song of Beowulf ". In the southwest the Britons kept out the Saxons, under the leadership of King Ambrosius and the shadowy King Arthur. In A. D. 500 these Britons won a pitched battle at Mount Badon, somewhere in the southwest. (Ref. [39](#)) Some Britons escaped the Germans by going to the Brest peninsula of France, subsequently becoming known as Bretons. (Ref. [40](#), [41](#))

SCOTLAND

In Scotland there were now four political nuclei; Picts, Dalreada, Welsh refugees and Ida of Bernicia's realm. At the end of the

century the Gaelic Scotti migrated from the north of Ireland to Scotland, giving the country its final name. The kingdom of the Picts and Scots resulted from the fusion of these Irish raiders and the Pictish tribes- men. By the end of the century the Irish had taken the Hebrides, there to contest with the Vikings, and many had beached their ships on the western Pictish coast. (Ref. [42](#), [43](#))

IRELAND

A powerful new family, the Ui Neill (sons of Niall) burst out of Mide to take virtually the entire northern half of the island under control, including a large part of Connaught and demolishing Ulster. Their original home near Tara in Mide, near modern Dublin, appears to have been an early sacred place, and perhaps using this as a lever, the Ui Neill laid claim to kingship over the entire country. Whether their claim was generally recognized is not known, but certainly the Eoganachta family did not, as they set up their own state in Munster and part of Leinster. The Ulster remnants crowded into a small area on the Irish sea coast of Dal Riata and from there they migrated on to Pictish territory of Scotland, called Argyll. The Romans called these Irish "Scotti" and so this name and their Goidelic language was given to this neighboring island. (Ref. [44](#))

Ireland started to become Christianized about 431 and shortly thereafter Patrick became the Irish bishop. He was originally a slave taken from a Christian home in Roman Britain Irish raiders, but he escaped and went to France, where he received monastic training before returning to Ireland. Pious tradition tells of hundreds of miracles performed by Patrick and the nun, St. Brigid, including restorations of sight to the blind and hearing to the deaf, raising people from the dead and similar procedures. (Ref. [45](#))

WALES

Wales was now becoming occupied by Irish. Celtic people related to the Feni of central Ireland gave rise to the Gwynedd in north Wales and the Desi of southern Ireland became the Dyfed of south Wales. But these Irish were later expelled by the P-Celtic speaking Cymru and the former left behind only Ogam monuments in the Gaelic tongue. (Ref. [46](#))

SCANDINAVIA

The Sveas (or Sviar) established their kingdom on the west side of Sweden and legend has it that the Goths developed their civilization in south-central Sweden. Helgo, an island in Lake Malar, became a trading post in the center of the Sviar Kingdom.

Archaeologically this era is called the "Teutonic Iron Age" in Denmark. (Ref. 47) A Nydam boat over 60 feet long with an outward resemblance to big boats of today, with oars and perhaps sail and very little keel has been found there, dating to this period. These boats were similar to the ones the Angles sailed to England from Slesvig throughout the century. There were numerous internecine wars and wars between Norwegians and Danes and Swedes. It was a wealthy period for the region but also a time of troubles, with construction of forts for each community. At the end of the century, each community hoarded gold. The use of the runic characters, the Scandinavians' own system of writing to show the sound of their languages, had been quite fully developed by this time. As mentioned in the previous chapter, the runes, or letters, were edged and particularly adapted for writing on wood.

The ancestors of the Finns, a Finno-Ugrian family of peoples, may already have been in Finland by this time. They were at least definitely in the region of the Baltic.¹

1

Perhaps the gold was paid to soldiers or frontier tribes. As the land routes were cut there was some increase in sea trade, so Jutland and Norway benefited. Norwegian boats of this century were 20 to 37 meters long, but archeologists have been unable to tell how they were propelled. In Sweden the city of Helgo began to flourish and it remained an important center for the next 500 years. (Ref. 48)

EASTERN EUROPE

As mentioned previously the Finno-Ugrian peoples were spread from the Baltic to the middle Urals and were primitive hunters and fishermen. Some of these people were the ancestors of the present day Finns and those in the Ural area were now called Magyars. In this century, for some unknown reason, the latter started to migrate westward.

The original home of at least part of the Slavs seems to have been the marshes of the western Ukraine in southwestern Russia.

Originally they were a drunken, unclean, cruel people with a passion for pillage but nevertheless a good natured folk loving games, dances and songs. They fell easy prey to the Huns who drove them ahead westward, much as one drives cattle, using them as a vanguard and in a sense, as slaves. (Ref. 49) By A.D. 420 almost all of Poland was Slavic. Related to the Slavs were the Balts on the southeastern shore of the Baltic but by A.D. 450 all of these were subservient to the Huns. (Ref. 50) After the latter's defeat in the Pannonia area, most of them retreated to the Russian steppe (A.D. 470) where they settled down with related tribes on the north of the Black Sea along the shores of the Sea of Azov, where they became known as Kutrigurs and Utigurs. On the Crimea, there remained a small pocket of Ostrogoths.

In the last quarter of the century, the full extent of the Slavs in Russia and west to the Elbe River and down to the lower Danube in eastern Europe could be appreciated. The Antes of south Russia were the wealthiest and most powerful but politically all Slavs as well as the related Balts were naive and easily dominated by others. (Ref. 51)

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1. It is of interest that Alaric captured 5,000 pounds of pepper in Rome. (Ref. 8)
2. This river was apparently in southern Pannonia (Hungary), south and west of the Danube
3. The terms "Mongoloid" and "Europoid" as used here are based on a classification by Russian anthropologists (Ref. 23)
4. A bow with laminated construction, using wood, sinew and horn. These had been excellently crafted and used in Asia and China for many centuries
5. Maenchen-Helfen (Ref. 37) says this idea is "grotesque" (Page 130) and says the reason Attila went into Gaul instead of Italy is unknown

Europe: A.D. 501 to 600

EUROPE

An interesting map showing the extent and location of the various barbarian migrations and their kingdoms about A.D. 526 will be found on the next page.

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

All, including Malta remained a part of the Byzantine Empire.

GREECE

Greece was an integral part of Byzantium. The Emperor Justinian closed the University of Athens and some of the professors fled to the more enlightened Persia to continue their work there. All pagans were ordered to become Christians. About A.D. 600 Slav tribes crossed the Danube and descended into Greece, driven by Avars behind them and soon only a few southern coastal cities remained Greek, in the old sense. (Ref. [1](#))

NOTE: Insert Map 32: The Barbarian, Migrations and Kingdoms AD. 526

UPPER BALKANS

For most of the century, the Ostrogothic king of Italy, Theodoric, also reigned over the Balkan area bordering the Adriatic in the region known as Dalmatia. At the end of the century, however, the Bulgars, Avars and a mixture of southern and western Slavs entered the area and remained to become the Croats, Serbs and finally the

Yugoslavians. The Avars were a Mongolian people of mixed Turkic background who had moved from Turkistan through southern Russia, enslaved masses of Slavs, as the Huns had ahead of them and moved on into Europe, ravaging the Balkans on the route and almost wiping out the Latin speaking peoples. Except for Salonica, Macedonia was permanently settled by Slavs in this century. Their occupation of ancient Dacia cut the land contact between Rome and Constantinople. The Bulgars, who moved in from beyond the Danube, controlled the Slavs in their area but gradually took over the Slavic language and culture. (Ref. [2](#), [3](#), [4](#))

ITALY

At the end of the last century, the Byzantine Emperor Zeno had commissioned the Arian Ostrogoth King Theodoric to conquer Italy and he had promptly done so. He then reigned over southern Italy, Sicily and a portion of the southern Balkans, Dalmatia, which was nominally under the Byzantine emperor. In addition, early in the century Theodoric defeated some of the Franks and kept the French Mediterranean strip as well as later increasing his holdings in Provence. He was a relatively just and progressive ruler encouraging a revival of learning and literature. His minister of state, Cassiodorus, a Roman of Greek lineage, tried to reconcile the Germanic and Roman types of culture and failing, he withdrew to found a monastery. He composed a history of the Goths, written in Latin.

The original has been lost, but excerpts by Jordanes, another Gothic official, are to be found in his *Getica*. Cassiodorus was responsible for saving some books from the great Roman libraries, including some works of Hippocrates and Galen, which he stored with other classic manuscripts in his ultimate monastery. (Ref. [5](#), [6](#), [7](#), [8](#))

The long Gothic wars ruined Italy. The problems included the existence of two distinct races - Roman and Goth - and two religions - Catholic and Arian, trying to live side by side, each practicing its own laws and traditions. The eastern Emperor Justinian, through his General Belisarius, retook Sicily in 535 and invaded Italy proper in 536 but did not crush the Ostrogoths until 563 when the Germanic Lombards, perhaps originally from Scandinavia and now driven west from Bohemia and Germany by the Avars, arrived to conquer the northern half of the Italian peninsula. These Lombards

were the last invaders of Italy, and they ruled their half for two centuries. An outbreak of bubonic plague had weakened the defense of Italy and some say that these Germanic people came into what was practically an empty country. This plague raged in Rome in A.D. 590 and in that same year a Byzantine counter-attack cut the new Lombard Kingdom into two parts, across the waist of Italy but the Lombard vitality continued in spite of this. In the area at the head of the Adriatic Sea, the Veneti tribe and refugees from other regions formed an island empire of sea-farers. (Ref. [9](#), [10](#))

Throughout the peninsula the old Roman institutions were rather quickly abandoned and among the first to be dispensed with were those of law and medicine. For some reason not entirely clear, non-clerical physicians just ceased to exist. The Benedictine monks encouraged care of the sick but only through prayer could cure come, so St. Benedict forbade the study of medicine. (Ref. [11](#), [12](#))

CENTRAL EUROPE

GERMANY AND AUSTRIA

The Slavic Wends had pushed into Germany as far as the Elbe River. West of the Elbe and Saal rivers were the surviving German tribes in the following locations, each retaining its own identity:

1. Saxons in the north central region.
2. East Franks along the lower Rhine.
3. Thuringians between the Saxons and Franks.
4. Marcomanni (Bavarians) along the middle Danube. They had migrated from Bohemia in this 6th century into an area of collapsing Ostrogoths.
5. Suevi (Swabians) along and between the upper Rhine and upper Danube and along the northern Alps.

Of these tribes, the Franks were culturally of the greatest significance. Reinhardt (Ref. [13](#)) says that this culture stands out as the fountainhead and pattern of the future German civilization. There is some disagreement concerning the language changes. Wells (Ref. [14](#)) writes that the Franks were akin to the Anglo-Saxons in speaking a "low German" which later developed into Dutch and Flemish, but Reinhardt does not agree, stating that the Franks, Alemanni and Bavarians from A.D. 500 to 800 had the high German

sound shift ("p" to "pf" or "f"; "t" to "ts", "z" or "s"; and "k" to "ch"), while Anglo-Saxon, Dutch, Flemish (Walloon) kept the original low or north German sounds. Clovis ruled the Franks until 511 and more about this dynasty will be found below under FRANCE.

By A.D. 560, Clovis' sons and grandsons had extended Frankish rule to take over dominance of Thuringia, Bavaria, Rhaetia and Alamannia in Germany as well as the Burgundian kingdom in Switzerland and southern France. There was little displacement of the native populations, however, and German and French developed as separate languages while the government remained in the hands of bishops and counts from the old Gallo-Roman aristocracy. The real power, however, remained with the Frankish army.

The migrating and raiding Avars (See HUNGARY and CENTRAL AND NORTHERN ASIA, this chapter) came in contact with the Franks on the Elbe in 562 at which time the Avar Khanate was perhaps one-half as large in north-south and east-west dimensions as the previous Hun Empire, but by A.D. 600 the Avars domain was almost as great as the Hunnish one, as they took over Hungary and most of Austria from the Gepids and the Lombards. By this time the Marcomanni had also reached lower Austria.

It is of some interest that falconry, although known from the Persian court as far back as 400 B.C., was really perfected in Europe by the Visigoths and Franks and became an important part of the hunting culture as well as an aristocratic pastime. (Ref. 15)

HUNGARY

History does repeat itself in Hungary. Just as the Huns had previously set up headquarters in Hungary now a new war band, fleeing from upheavals in central Asia and known as "Avars", established themselves on the Hungarian plain and launched raids far and wide, pushing the Lombards into Italy, the Slavs into the Balkans and allowing the Bulgars (another nomad tribe) to come along the lower Danube. These Avars, who raided Constantinople as well as western Europe from this base, were a mixture of Mongolian Juan Juan, pushed west by the Blue Turks, and various nomad Turkish or Hunnish tribes which they had picked up on their journey through northern Iran and the Russian steppe. (Ref. 16)

CZECHOSLOVAKIA

As the Bavarians moved west out of Bohemia, the Slavs moved in and then also spread to Moravia.

SWITZERLAND

This land was still occupied chiefly by Burgundians under Frankish suzerainty and in this century they were joined by Suevi.

WESTERN EUROPE

SPAIN AND PORTUGAL

The regions of both Spain and Portugal were ruled by Visigoths but under Roman supervision. Through the influence of the church, which used Latin in her rituals, the Visigoths, within a century after their Spanish conquest, forgot their Germanic speech and corrupted the Latin of the peninsula into Spanish. This was a gradual language change and Spanish, as we know it now, did not actually mature until the 19th century, at least in written form. (Ref. 17) In this Spanish society, great gulfs remained between Christians and Jews and between rich and poor. The early Visigothic aristocracy was in close cultural contact with Rome and Byzantium and lived lives of affluence and taste. (Ref. 18)

Early in the century the Visigothic kingdom was ruled by a boy king who actually left the power to the Ostrogoth King Theodoric of Italy. The combined Gothic power was great and was such that the Vandals even gave up the western end of Sicily. (Ref. 19) An intra-Gothic war occurred in 554, however, allowing Emperor Justinian's General Belisarius to occupy southern Spain. As if to make up for this, the Suevi kingdom in Galicia was absorbed into the Visigothic kingdom in 585. (Ref. 20) A series of East Roman-Visigothic wars followed.

For awhile two legal systems existed in Spain, one a written German law and the other Roman law. Although many of the Visigoth nobles were publicly converted from Arianism to Roman Catholicism in 589, religious division persisted and the problem was augmented by the prosecution of Jews by order of Emperor Heraclius, early in the next century.

Architecture was poor, libraries small, common schools nonexistent but a hospital under non-clerical administration was established for the first time at Merida in southwestern Spain in this century. (Ref. 21, 22)

FRANCE & NETHERLANDS AND BELGIUM

The army of the Frank King Clovis defeated the Visigoths at Voluille in A.D. 507 and then the remainder of Gaul fell quickly to the Franks as the Goths withdrew to Spain. This conquest of Gaul by the Frankish tribes marks a milestone of German and European history and transcends in importance the other migrations. All other groups were soon absorbed numerically and culturally by the native Roman populations, but the Franks, under Clovis, as founder of the Merovingian Dynasty, and his sons established a military kingdom with strong agricultural underpinnings and it persisted, with a capital at Paris. (Ref. 23) Wells (Ref. 24) says that those Franks who did not become Latinized became the Flemish and Dutchmen of South Holland but that North Holland is Anglo-Saxon in origin.

The development of various Germanic languages from the original Frankish tongue was discussed under GERMANY above.

Although Clovis became an orthodox (Nicene) Christian, much of the conversion of his people was accomplished by Irish and Anglo-Saxon monks. He made Gaul into France but after him the dynasty degenerated. His sons conquered the Burgundians about 532 but the Burgundian state still remained separate under Merovingian princes throughout the remainder of the century. Provence was acquired from the weakened Ostrogoths in 536. Frank chieftains intermarried with remnants of the Gallo-Roman senatorial class and generated the aristocracy of France. In spite of Christian conversion seldom has an upper class shown such contempt for morality as this one. (Ref. 25, 26, 27, 28)

As at Merido in Spain, Lyons had a non-clerical hospital in this century. (Ref. 29) Hugh Thomas (Ref. 30) writes that leprosy apparently arrived in France and England in this century and that lepers were isolated, declared legally dead and of ten excluded from the church.

BRITISH ISLES

ENGLAND

After the Celtic victory of Mount Baden which was described in the last chapter, there was a period of security in southern England for about two generations but then the Saxons began to advance again so that by 577 the confrontation line extended to the Bristol Channel, Bath and Gloucester. By 600 only Devon and Cornwall of

southern

England were not Saxon. The law, language and economy of the Roman province had disappeared. While the Saxons were valley dwellers and farmed and formed villages, the remaining Britons were in the hills and highlands. Thus hill, wood and stream names are often Celtic in origin, while lowlands and villages have Anglo-Saxon names. The Saxon villages were in open areas and the houses were little more than wattle and daub structures with a single ridge pole, sunken floor and a total space of about 10' by 15'. They used horse-drawn ploughs, milled wheat, barley and oats and grew cattle, sheep, goats and pigs. (Ref. [31](#), [32](#))

The transplanted Saxons were converted to Christianity in the last of the century chiefly through the efforts of the Frankish Queen of King Ethelbert of Kent and the papal envoy, St. Augustine, originally from North Africa. North England received Christianity from north Ireland via St. Columba, who succeeded Patrick.

SCOTLAND

Britons and a few Angles migrated into Scotland at this period and shortly after 525 the Irish colonized western Scotland. Soon the word "Scot", originally an alternative to "Irish", became reserved for these northern settlers only. In Scotland, proper, although the deserted Antonine wall had crumbled it still formed the loose southern border of Pictland. South of it the north Britons of Strathclyde, related to the Welsh, had organized an aristocratic society with manors, towns and farms. To understand the British Isles in those early days one must consider Ireland, Scotland, Wales and certainly northern England as an inter-related group of communities and it is difficult to completely separate their histories. (Ref. [33](#), [34](#))

St. Columba (See IRELAND below) carried Christianity from Ireland to Iona in western Scotland in 543. This religion was separate from control of the Vatican pope and was not related or descended directly from Latin Christianity in England. For four centuries Iona was the center of Celtic Christianity and some beautifully decorated Celtic manuscripts survive from that era. (Ref. [35](#))

IRELAND

Colum Cille, later to be called St. Columba, was born in Dal Riata of

the family Ul Neill and when forty-two years old, set out as a pilgrim, accompanied by twelve disciples, toward the land of the Picts. He landed on the tiny island of Iona, there to establish his own type of Christian monastery. While still maintaining some ties to Ire- land, Iona developed into a spiritual center for all the tribes of coastal Scotland. The Irish spirit shone with its strongest light at that time, with culture and knowledge at a high peak. Many learned men from the continent, fleeing the invading barbarians, ended up on the shores of Ireland. A boatload of 50 scholars arrived at Cork in 550, bringing with them their craftsmen and it was these wanderers who subsequently taught the technique and made princely ornaments as well as weapons. Then learned men from Ireland became missionaries back to England, Germany and Gaul. (Ref. 36, 37)

Monks from the Iona monastery sailed to the Orkneys, Shetlands, the Faroes and Iceland. (Ref. 38) It is even possible that St. Brendan, the patron saint of County Kerry, sailed to the coast of North America in a leather curragh with goat skin sails, in this century.

There is much of this in Irish legend and the 10th century book, *Navigation Sancti Brendani*, of unknown authorship, as well as some material evidence accepted by some established scholars including such things as 10th century Vikings' accounts of previous Irish navigators, possible ancient Irish Druid alphabet markings on Newfoundland rocks and "100 recognizable Celtic roots in words which were used by pre-European inhabitants of some of the places where Irish monks are supposed to have landed."¹ Fell (Ref. 39) concurs in this.

In 590 Columba the Younger, also with twelve companions, went from his home in Leinster to France where he confounded the Merovingian king and founded monastic communities at Luxeil and Fontaine and then went on to Switzerland and Italy. At home, the Irish kings were finally converted to the Irish version of Catholicism, after the whole of Ireland was devastated by the yellow plague in the middle of the century. (Ref. 41)

WALES

Fleeing before the invading Germanic tribes, thousands of Britons went to Wales and mingled there with the Welsh Celts and Irish to form the Cymri people and the country then became known as

Cymru. The family and clan were the basis of the social order. Christianity came in this 6th century through Dewi (David), who was canonized as the patron Saint of Wales in A.D. 1120. (Ref. 42) This was also the era of the Mabinogen - Tales of the Bards of Wales.

SCANDINAVIA

About A.D. 600 the Goths and the Svea of Sweden united to form the kingdom of Sweden. From that time on the Goths, as an entity, ceased to exist in the north, although a strong racial heritage is still seen throughout Sweden and especially on the island of Gotland. This was the time of the beginning of Scandinavian art with animal ornaments as the chief feature and which was to continue until the Viking Age.

The Danes had gold and silver and Roman money. Gradually it became the custom to seek one's living on the sea. With a population surplus and the other Germanic tribes blocking migration south by land, they sought paths of expansion on the open sea, although the true Viking Age was far in the future.¹

¹

There is some suggestion, though, that this was a time of crisis, possibly involving climate deterioration, soil exhaustion, deficiency disease in cattle, violent invasions, internal conflicts and possibly plague. The Swedish city of Helgö, however, apparently was not affected by the decline seen elsewhere. Frisian settlements along the mainland coast were key centers for contact of the Scandinavians with western Europe. (Ref. 43)

EASTERN EUROPE

BALTIC AREA

The north-south expansion of displaced eastern Slavs between this and the 8th century cut the eastern Balts off from their western core, and in the west the Balts were confronted by Germanic expansion. Just south of the Gulf of Finland, some of the eastern Slavs took to the forests, wedging between the Finns and the Estonians. (Ref. 44) Most of Poland was occupied by various Slavic

tribes who had not been disturbed by the Goths, Alans or Avars and their villages were not fortified until near the end of the century when they began to quarrel with each other. (Ref. 45)

RUSSIA

As the Germanic tribes moved west, the Slavs came out of the Pripet marshes, forested, swampy region about 38,000 square miles in area extending along the Pripet River, which is a branch of the Dnieper. (Ref. 46) Early in the century on the north shore of the Black Sea there were Kutrigur or Utigur Huns, along with a small pocket of Goths still on the Crimea. In the Caucasus there were Alans and north of them on the north shore of the Caspian were the Sabirian Huns and east of the Aral Sea were the Ephthalites.

In 559 the Avars, defeated by the Turks in eastern Asia, moved to the Russian steppe where Justinian paid them to control the resident Huns and Slavs who had been raiding the east Roman Balkan areas. These Avars, soon ruling from the Volga to the lower Danube, turned north and west until in 562 they came in contact with the Franks on the Elbe, establishing an extensive Avar Khanate. (Ref. 47, 48) The Western Turks, coming behind the Avars in 576, took part of the Caucasus just west of the Caspian and there known as the Khazar, although Alans still controlled most of the western part of this region between the Black and Caspian seas. North of the Khazar and the now separate Western Turkish Khanate were principally Finnish people, sparsely settled, while the Slavs were still farther west and dominated by the Avars.

The Black Bulgars, originally a mixture of Huns, Ugrians and Turks, lived at this time in the valleys of the Don and Volga rivers. In this 6th and the 7th centuries there were 12 major Slavonic tribes in Russia, including the Polinians living on the middle Dneipner in the Kiev region. They lived in communities, held slaves, and were family oriented in a type of democratic society based to some extent on communal ownership of property. Many groups were governed by "elders" rather than by chieftains. They may have traded some with Byzantium, but the chief economy depended on agriculture of the cut and burn principle.

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1. Quotation from "St. Brendan's Fantastic Voyage" by Gerald Schomp, (Ref. 40)

Europe: A.D. 601 to 700

EUROPE

Slavery continued in Europe throughout these "Dark Ages" despite the Christian Church, but in this century, when Arabs gained control of the Mediterranean, it was difficult for Europeans to get slaves from the Levant. Most were then obtained from the Slavic regions. (Ref. [1](#))

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

The century began with these islands all a part of the Byzantine Empire but one by one the Arabs began to take them over in the latter decades. Cyprus, with its copper mines, fell to the Moslems in 648 and Rhodes in 654. (Ref. [2](#))

GREECE

Greece was now heavily infiltrated with Slavic peoples and although nominally under the eastern Roman Empire, only some of the coastal cities were truly Byzantine.

UPPER BALKANS

The Bulgars, whose original Kaganate was in the middle Volga far north of the Caspian Sea, had migrated in the previous century to the Danube region. This group, including one branch of the Utigurs, had founded a Bulgarian kingdom in ancient Moesia, enslaving the Slavs already there but they adopted the Slavs' language and customs and in time intermarried with them. They began to take over more and more Balkan territory from Byzantium by 679 and were recognized as a separate country in 681 when their first king,

Isperikh, was crowned at the capital, Pliska. These were the so-called "White" or "Western Bulgars", originally related to the Huns. (Ref. 3, 4)

Farther west, the Srbi (Serbs) settled in part of the old Pannonia and Chrobati (Croats) settled in Illyricum, forming eventually the country of Serbia. By 650 the Slavs \ constituted the majority of the people in the Balkans. Avar horsemen, operating out of Hungary, spread havoc intermittently through the area and repeatedly appeared under the walls of Constantinople.

ITALY

The Lombards regained control of the northern plain of Italy, where the Byzantines had driven a wedge, between A.D. 601 and 605, establishing a progressive state under Duke Agilulf, who was actually a Thuringian. The Lombards maintained intermittent relations with Rome and eventually became Catholics. Venice continued as an independent realm, allegedly having been built up from fishing villages settled by fugitives from the Huns, on some 60 marshy islands. (Ref. 5) Rome continued as a part of the Byzantine Christian Empire although it was no longer its chief city. The remainder of Italy was a patchwork of independent cities or duchies, such as the Duchy of Spoleto and the Duchy of Benevento. (Ref. 6)

CENTRAL EUROPE

GERMANY

The Germanic and Slavic peoples had little disease and no superimposed imperial macroparasitism¹ such as the Mediterranean urban populations imposed on the peasantries there, and so they had tremendous population growths, with the Slavs colonizing the Balkan peninsula, as we have noted above, and the Germanic tribes swarming to the Rhine and finally far beyond to Britain. (Ref. 7)

Even in the previous century the Frankish kings of Germany had to reward their followers and the church by granting away their own land and revenues. By the middle of this 7th century two families had emerged as the principal agents of the kings for these transactions. One of these was from Austrasia, the traditional eastern Frankish land, and the other was from Neustria, the new lands north of the Loire. By 687 Pepin, of Heerstal (near Aachen) of

the Austrasian family, had won out, thereafter dominating the Frankish kingdoms. (Ref. 8) At that time several basic or stem duchies became prominent, including Bavaria (named from the Baiuvaril branch of the Marcomanni), Swabia (bordering Switzerland), Thuringia, Saxony, Franconia and Frisia.

By the end of the century northeastern Germany had quadrupled its population over that of Roman times, chiefly due to the more abundant food supply available with the use of the "moldboard" plow, introduced by the Slavs. This plow required eight oxen to pull it but it allowed three-field rotation of crops and allowed not only the production of more, but also better food, containing more amino acids and protein, thus giving the people more energy and greater stamina. (Ref. 9) (See also FRANCE, this chapter)

AUSTRIA

The area now known as Austria was partly controlled by the German duchies and partly by the raiding Avars.

HUNGARY

This was the homeland of the Avars who raided in all directions from this base. Please see this section in the previous chapter.

CZECHOSLOVAKIA

Moravians gained independence by holding off the Avars and then they were able to stop the Franks who tried to come in from the west. After the death of their King Samo, however, this first attempt at a Slavic state in central Europe collapsed. Samo may actually have been a Frank but he had managed to unite the Czechs and some of the Wends. The people of Bohemia also repudiated Avar suzerainty and after that the Avar power declined rapidly. (Ref. 10)

SWITZERLAND

This was simply part of the Frankish kingdoms.

WESTERN EUROPE

SPAIN AND PORTUGAL

Between A.D. 612 and 621, Sisebut, a well educated Visigoth monarch, reconquered most of the peninsula from the Romans and

his successor, Swintilla, completed the job. Even so, the Visigoths became "Romanized" by legal unification through the *Liber judiciorum* of Reccesivinth after 649 and the warrior aristocracy of the Goths was united with the plutocratic-bureaucratic aristocracy of the Roman world. The common people raised sheep. (Ref. 11) Although the Visigoths had not used slaves in any significant degree previously, they took over the Roman custom with a vengeance and in the Code of King Erwig (680-687) there were 21 provisions giving severe penalties for harboring fugitive slaves. (Ref. 12)

FRANCE & NETHERLANDS AND BELGIUM (See also GERMANY)

At the beginning of the century there were actually three separate Frank kingdoms: (a) Austrasia with a capital at Metz, lying to the east, actually in Germany and having chiefly Teutonic blood²; Neustria with a capital at Soissons and Gallo-Roman blood; and (c) Burgundy. The latter was united with Austrasia by King Clotaire I in 613, leaving only two. Partly because of the Frankish custom of rulers dividing their kingdoms among all sons, the Merovingian dynasty crumbled with a series of very weak rulers and the ministers, or major domos, began to be the actual administration heads of the government. Thus in 639 Pepin, as mayor of Austrasia, started the reorganization of the Frankish state. He and his immediate descendants gave much of the old nobles' western land to their own followers from the Rhineland, so that, in effect, France was subjected to a new Germanic invasion.¹

¹

(Ref. 13)

BRITISH ISLES

ENGLAND

In the early century, the Britons of Strathclyde, Wales and Cornwall were all separated by the Anglo-Saxon kingdoms. (Ref. 14) This was a period of adjustment under the Angles and the Saxons, the latter being the most cruel of the Germanic tribes.

They had probably incorporated the Jutes and Angles before the general exodus from Schleswig-Holstein. The Celtic Britons continued resistance on the periphery.

In 655 the Northumbrians regained leadership over Mercia, which had been the chief power from 642 on, and then the Northumbrians reduced the Britons (then all were called "Welsh") in Strathclyde to bondage as well as the Picts and Scots. The bond was short lived though as the latter quickly broke loose and by 679 Northumbria was again subservient to Mercia. (Ref. 15) Augustine became the first Archbishop of Canterbury in A.D. 601 and his early achievements were great. After the novelty of the new religion had worn off, however, many English leaders returned to their old ways so that by 616 even the church in Kent was in danger of extinction. (Ref. 16) Papal Christianity spread into north England through the increasing power of Edwin, King of East Anglia. In 664, after a conference of English (papal) and Briton (Celtic) bishops at the Synod of Whitby, most of the island became Romanized Christian but Ireland remained aloof. Two conferences of the Roman St. Augustine and his Saxon convert Christians with the bishops of the "Far Western Christianity" of Ireland, failed, and the two camps remained enemies. After that Synod a severe epidemic occurred, the nature of which is unknown. (Ref. 17) Bede recorded four epidemic pestilences in England within the 20 years from 664 to 683.

Of incidental interest is the fact that there was no wheel-turned pottery (Anglo-Saxon) in England before A.D. 675. (Ref. 18)

SCOTLAND

The Scots, originally from Ireland, as we have previously noted, pushed their way up the Great Glen and approached Iverness before they were finally defeated by the Picts. In the south the Angles were pushing north from England with both cavalry and infantry but the Picts, under Bridei, were temporarily united and able to drive them back in the battle of Nechtansmere in 685. (Ref. 19, 20)

IRELAND

At this time the Irish were materially and politically more backward than the English but in a special cultural way they were the most advanced of all peoples north of the Pyrenees and the Alps. Both Gallic and British scholars came to Ireland to escape the Germanic invasions. Ireland was never invaded by these tribes and was never Romanized. Its Christianity was a separate brand which was mentioned above as the Far Western Christianity (2) and which maintained an independent existence and development for many

hundreds of years, reaching its apogee in the 6th and 7th centuries.

As in England the yellow plague hit Ireland in 664. Although we mentioned Irish exploration of the Faroe Islands in a previous chapter, some authorities believe that they did not discover these islands until about 690.

WALES

This remained as a western Celtic fringe.²

²

The shape and construction came from a long Baltic tradition, but the mast and sails were taken from western Europe. (Ref. ²¹)

SCANDINAVIA

NORWAY

An excavation at Kvalksund, Norway, shows that by about A.D. 600 sizable sailing ships were being built. These were shallow-draft vessels with planked decks but no keels. Thus, new mobility on the sea, coinciding with increased hunger at home, led to the Viking raids some two centuries later. (Ref. ²²)

SWEDEN

This was an age of gold called the Vendel Period, in Sweden. The Swedes were beginning to push north and west to the northwest coast of Norway.

DENMARK

The Danes sea-faring was steadily increasing and they were already occasionally raiding the coasts of France.

FINLAND

This country was very sparsely occupied by Lapps whose early history remains something of a mystery. Speaking a Finno-Ugric tongue, traditionally it has been considered that they originated in central Asia but recent genetic studies indicate that they are true native Europeans.

EASTERN EUROPE

BALTIC AREA

Thomas (Ref. 23) says that the one contribution made by Slavs to human improvement was the re-introduction of the heavy plow, which was a variation of one used in northern Italy in the 1st century C.E. It had a knife-like iron blade in front which slashed vertically into the ground, a plowshare which cut horizontally through the ground and a mold-board which turned the soil over to one side. We have remarked earlier that the German put this to very good use in this century. Closely related to the Slavs were the Lithuanians, who together with the Letts and the ancient Prussians, formed the Baltic branch of the Indo-European family. They lived between the present day Memel and Estonia.

Poland had Slavic people divided into many tribes with no unification or organization at this period.

RUSSIA

Part of far eastern Russia was controlled by the great Turkish Confederacy which simultaneously dominated all of central Asia up until 630. The Khazar Khanate in southern Russia expanded rapidly, defeating their Caucasian neighbors, the Alans and the Bulgars and it was some of the latter who fled to the Danube next to the remaining Avars. Some went to the Volga where they remained under Khazar suzerainty. By 650 the Khazar Khanate extended from the Dnieper to the Caspian Sea, with a very modern city, Itil, as capital on the north shore of the Caspian. Northward they extended almost to the headwaters of the Volga. Their rulers accepted the Jewish religion, apparently to assert their independence from both Moslems and Christians.

Just north of the Black Sea, the Utigur and Kutrigur Huns coalesced and took a new name - Great Bulgaria. (Ref. 24) Elsewhere in western Russia the Slavs lived more or less freely and independently. In the very far north there were still the scattered Finns and/or Lapps. (Ref. 25)3

there, apparently incident to trade. From Kama, the arctic valley of the Pechora was exploited. The Khazars controlled the southern part of that trade route and gathered tribute from a large area north of the Black and Caspian seas. All of this trade was interrupted in the middle of the century by the expansion of Islam and its attempt to conquer the Khazars. As a result, Byzantine and Sassanian coins disappeared from the Caucasus by 700. (Ref. [26](#))

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1. McNeill's terminology

Europe: A.D. 701 to 800

EUROPE

SOUTHERN EUROPE

In these early Middle Ages, the deadly black stem rust began to ravage the wheat fields, producing famine in various areas of southern Europe. The disease had been brought in, unknowingly, with the barberry bush by the Arabs. The barberry was valued for the curative potion (the stem) and the brilliant berries, edible in a preserve. (Ref. [1](#))

EASTERN MEDITERRANEAN ISLANDS

In this century Crete, previously under Byzantium control, along with most of these islands, had some bases established by the sea-going Venetians. Cyprus was taken by the Arabs and then reconquered by Byzantium. (Ref. [2](#))

GREECE

For some centuries now the great classical and early Christian centers of the lower Balkans, - Athens, Corinth, Thebes, Salonica and others, had lost all contact with the world of which they had been an integral part. In 726 Greeks revolted against the Byzantine Leo III, sending a Greek fleet toward Constantinople but they were defeated by the imperial navy using an incendiary mixture called "Greek fire". (Ref. [3](#)) As the century ended the Slavs were once again beating down on the borders of this country.

UPPER BALKANS

As in the last century the Balkans were filled with Slavic peoples, mixed here and there with Bulgars and Avars. In the new kingdom of Serbia the Serbs accepted the Greek Orthodox form of

Christianity while the Croats adopted the Roman form. Stress inevitably followed so that by the end of the century the Croats had formed their own independent kingdom. (Ref. 4) The Danube Bulgars had continued to move west into the Balkans, taking land from Byzantium. Tervel, king of the Bulgars, actually exacted tribute from Emperor Justinian II. He was followed by King Sevar, the last of the Dulo Dynasty. (Ref. 5) Periods of war and peace between the Bulgars and Byzantium alternated throughout the century.

ITALY

The Lombards, who now filled northern Italy, fought by bow and arrow from horseback and were essentially a warrior people. As a papal state emerged where a pope (though not an emperor) still lived, it was threatened by the Lombards and the pope finally requested the Frank King Charlemagne to invade the area. At the end of the century Charlemagne complied and Lombardy became a province of the Franks. In an attempt to regain prestige to match that of Byzantine, Pope Leo III eventually teamed up with the Frank king to extend the Church's domain, with the result that the pope became the spiritual ruler and Charlemagne the temporal emperor of the Holy Roman Empire. By this time, Rome had dropped in population from about 1,000,000 in A.D. 400 to under 100,000, principally because of famine after the cessation of the giving of free bread. Gradually a coalescence of the Lombards and the Roman people developed with the result that there was a substantial Lombardic contribution to the Italian language and to the artistic and literary fields. The Latin language continued to be Latin, but further and further removed from the classical standards. Cases had all but disappeared by this time and the language has been called Proto-Romance. (Ref. 6, 7)

NOTE: Map 34: Lombard Kingdom Before Its Conquest by Charlemagne in 774 and

Map 35: Expansion of the Papal States 756-817

Maps taken from Reference 97

Naples, Amalfi and Venice continued as independent states with Venice actually helping the Moors enslave some Europeans. (Ref. 8)

The first European medical school was founded in this century at Salerno, in southern Italy. Sardinia was invaded by Moslem forces in 720 and in this and the next century Sicily was exposed to sudden, devastating raids by Moslem free-booters. (Ref. 9, 10)

CENTRAL EUROPE

The use of the heavy plow (see pages 439 and 443) in northern Europe accounted for an increase of food and a consequent increase in population. Although there continued to be Merovingian kings in the Frankish kingdoms of Austrasia and Neustria up until 752 throughout this century the real administration of western Germany, as well as of France, was under control of the House of Pepin, later called the Carolingian Dynasty, all descended from Pepin of Landen and Arnulf, the Bishop of Metz. Among these descendants was Charles Martel, Mayor of Austrasia and Neustria from 714 to 741 (See FRANCE, below), and Pepin III, the Short, Mayor of Neustria and king of the Franks from 747 to 768. It was this Pepin who first responded to the pope's pleas for help against the Lombards and did manage to force them out of Pentapolis and Ravenna. Thereafter the Carolingians maintained a protectorate over the papacy in Italy. (Ref. 11, 12)

In 768 Pepin III's son, Charles the Great (In France - "Charlemagne" and in Germany more correctly "Karl the Great"), became king of Austrasia, Neustria and northern Aquitaine, while his brother, Carloman, ruled over southern Aquitaine, Burgundy and Septimania. Charles (or Karl) was a typical German, six feet in height, a superb swimmer and athlete. He married a Lombardi princess but soon repudiated her and conquered all of Lombard Italy as well as Venetia, Istria, Dalmatia and Corsica. The Bavarian duchy had begun an eastward expansion that drove a wedge between the southern Slavs and the main mass of Slavic people to the north by 758, thus isolating the Balkan groups. Karl incorporated Bavaria into his kingdom in 778 and in the next year took Carinthia (southern Austria) and Vienna became a Carolingian-Frankish border fortress. Saxony fell to Karl in 785 and so all Germany, Austria, Bohemia and even a portion of Hungary came to be a part of his domain. As a result the more northern Slavs were pushed back east of the Elbe River, creating "New Germany", a distinction that has persisted in some degree to this day. The Elbe

now roughly corresponds to the border between present East and West Germany. The history of the region of Brandenburg (later Prussia) begins when Karl the Great established forts along the Elbe to keep out the Slavs. (Ref. [13](#), [14](#))

In Hungary Karl's troops reduced the Avars to a mere remnant, as they were crushed between this Frankish army and a Bulgar attack from the east in 796. Switzerland was a part of the original possession of the Frankish Empire, included in the regions known as Burgundy and Alamannia and it was administered primarily under Neustria. (Ref. [15](#))

Charlemagne's Empire was Roman Christian and Germanic, all in one. Economically and socially it never attained to that cohesion and unity that characterizes a thoroughly civilized state. Beer had been made and drunk in large quantities in the German areas for several centuries and it was consumed throughout Karl's territory and even made by master brewers in his palaces. No hops were used. Christianization of northern Germany was completed partly by missionaries and partly by forced conversion by Frankish overlords. After Charlemagne was crowned emperor by the pope on Christmas, A.D. 800, his Italian affairs occupied him so completely that he lost control of Germany and the Slavs again entered from the east in the next century. The Weser River represented the farthest limits of the Slav expansion westward. (Ref. [16](#), [17](#))¹

¹

(Ref. [18](#))

WESTERN EUROPE

SPAIN AND PORTUGAL

In A.D. 709 and 710 Moslem Moors attacked the Spanish coast but didn't land. At about the same time the Visigoth nobles were quarreling over the succession to the dead King Wittiza, finally electing a younger son, Rodrigo. Supporters of the eldest son fled to Morocco to get aid. As a result, a mixed force of Arabs and Berbers, led by the Berber Tariq from Mauretania, invaded Spain in 711, quickly taking the southern part, helped both by Jews and the Visigoth supporters of the eldest son claimant to the throne. Another Moslem general, Muza, landed at Algeciras in 712, quickly

took Seville and Merido and then headed north. The surging Moslems went on to cross the Pyrenees and swept into France to be stopped finally at Tours, by Charles Martel, in 732. Falling back into Spain, the Moslems broke up the overgrown estates of the Visigothic nobles and developed a new society. The ruling Abbasid Caliphate was never accepted in Spain and the Spanish Moors declared independence from Baghdad in 756, reviving a branch of the old Omayyad family to form the Omayyad Dynasty of Cordoba which lasted until 1031. No western city equaled Cordoba in size or culture and no government in the west was better than that of Moslem Spain. (Ref. [19](#), [20](#), [21](#), [22](#))

The unconquered Goths, Suevi, Christianized Berbers of a previous migration, and the Iberian Celts went into northwestern Spain and Portugal, where the Goth, Pelayo, became king of Asturias and founded what was to become the Spanish monarchy. After Pelayo came Alfonso I and II and during this period the Visigoth Spanish Catholics now brought forth Spain's most brilliant and characteristic creation, Mozarabic art, found now in liturgy remnants only in Toledo and Salamanca chapels. These Catholics, allowed to worship as they pleased, although more or less confined to ghettos within the Moslem state and separated from the main European tradition, developed both their own individual brand of Catholicism and art. The latter was a vivid combination of remote classicism, Islamic miniatures and the primitive idioms of Visigothic folk-art. It is of interest that this Muslim conquest of Spain also culminated in a "Golden Age" of Spanish Jewry' (Ref. [23](#), [24](#))

Hisha I, emir from 788 to 796, reversed the doctrine of tolerance and attacked the Christians, although he promoted a religious and intellectual aristocracy. This latter group was suppressed with cruelty; however, as Hakam I took control in 796. (Ref. [25](#))

FRANCE & NETHERLANDS AND BELGIUM

It is again recommended that the sections on GERMANY and FRANCE be studied together in this and adjacent centuries since both were administered more or less together under the Franks. In 732 Charles Martel, son of administrator Pepin II, extended his father's confiscations to include all income from church lands under Frankish control in order to support a substantial force of cataphracts (armored knights) which gave him military supremacy in the entire area. It was he who stopped the Moslems at Poitiers,

near Tours in 732, using cavalry equipped with stirrups so that they could ram home lances and use maces and swords while remaining mounted. Without this battle, western civilization might never have existed. Following that victory Europe had to increase its numbers of horses and horsemen to continue to protect itself and "feudalism" was the result. (Ref. [26](#), [27](#))

The Merovingian Dynasty came to an inglorious end and the Carolingian Dynasty began with Martel's son, Pepin , who began to dominate a greater area and paved the way for his son, Charles (Charlemagne), the greatest of the medieval European kings. He allowed the pope to crown him "Emperor of the Romans" in 800 A.D. No eastern emperor had visited Rome for some 300 years. (Ref. [28](#), [29](#))

In the far north in the Belgium-Netherlands area, the Frisians were on top commercially, trading in wine, salt, oil, glass, textiles and metal work. In the far south of France a few Byzantine goods drifted in and in return the West sent slaves, iron and timber to the East. (Ref. [30](#), [31](#)) (Continue on pages 488 and 490)[2](#)

[2](#)

(Ref. [32](#))

BRITISH ISLES

ENGLAND & WALES

The scholar Bede states that five languages were spoken in England at this time - English, Celtic, Irish, Pict and Latin. The early English was the language of the Angles and differed little from Saxon and was intelligible to the Franks, Norwegians and Danes, all of these being varieties of basic German. The Beowulf, a famous Anglo-Saxon poem, appeared in England in this century. Gradually the Saxons developed kings, as glorified generals, who protected themselves by giving lands to barons and in this way a land aristocracy soon developed. In the last half of the century there were ceaseless wars between some seven kingdoms, all now nominally Christian. But Bede, writing to the Bishop of York, Egbert, in A.D. 734 complained that some bishops were drunken revelers and Boniface wrote in much the same vein to the Archbishop of Canterbury, complaining of drunkenness of bishops and loose living of nuns. So Christianity was not having an easy

time. (Ref. 33)

All of this 8th century activity was followed in A.D. 793 by the first great Viking sacking of the monastic center at Lindisfarne, probably by Norwegians. Another group, probably also Norwegian, had come down the English channel in 789, landing at Portland on the Dorset coast. Danes from Jutland also started their raids. There is no doubt that all of these raiders, - Angles, Jutes and the later Danes and Normans as well as the North- men who went down through Russia, and the still earlier Goths, were all waves of one and the same type of Germanic people. (Ref. 34) But to return to England, in spite of all the turmoil, there was some international trade and visitations in this century. There were even Chinese in King Offa II's Mercia court at the end of the century. Mercia, along with Northumbria and Wessex, were the largest of the English kingdoms. (Ref. 35) (Continue on pages 490 and 492)3

3

The Lindisfarne attack is well documented by letters, but that was not the first place to be raided in western Europe, just one of the more extensive and noteworthy. (Ref. 36)

SCOTLAND

Throughout the last century the Picts had fought against each other, but after a last intramural battle in 729, Oengus became king of all Picts. He promptly made peace with the Angles and then turned to battle the Scots, capturing Dunadd and Dunolly, drowning one Dalriadic king and forcing others to take to the sea. But when he wheeled south again against Strathclyde, his army was annihilated, perhaps through some treachery. (Ref. 37) Iona, the Scottish religious shrine island, was invaded by the Norse in 794 and was burned just after the turn of the next century. (Ref. 38)

IRELAND

The Christian world of Patrick's Ireland was shattered by Vikings in 795 and raided by them for the next 200 years. As a result of this, there are currently genetic similarities of populations of Scandinavia, Scotland and Northern Ireland, even though geographically separated. Irish monks landed in Iceland about 759, in hide-covered curraghs. (Ref. 39, 40)

SCANDINAVIA

NORWAY | SWEDEN | DENMARK

Of the territory of the Germanic peoples, only Scandinavia kept out of Charlemagne's Empire. In Sweden, the town of Birka began to dominate the area of Lake Malar. It was an economic unit of considerable importance. Even a bronze Buddha has been found there. Just west of present day Stockholm, the island of Helgo was the center of industry, including the production of cheap jewelry, iron-working, etc.

The first Dano-Norwegian raid to strike real terror in Europe was the attack on Lindisfarne, England in 789, where a famous convent and seat of learning was attacked and the inmates killed or taken off as slaves. Many of the raids of the Frisian and English coasts originated in the vigorous kingdom of Juteland in Denmark. "Viking" probably means "men from the fiords", because "vik" means "a little fiord" in both Danish and Norwegian. In addition to sea travel, the Scandinavians travelled great distances by land, as from Uppland, Sweden to Trondelag, Norway, by horses, sledges and carts. There was an ox-road from north Juteland into Germany. In winter men used skates and skis and put spikes on horses' hooves. (Ref. 41)4

4

There were significant increases in imports of glass bowls, beakers, pottery, mill-stones and silver coins from western Europe through Frisia to Denmark and Helgo in Lake Malaren in Sweden. Boat-graves in the latter country contain such glass and coins. In Denmark there was built the Danevirke, a complex fortification of timbers across the base of the peninsula, perhaps because of Charles Martel's campaign against the Saxons in 738. The Limfjord was open at both ends and that was the normal route from the North Sea to the Baltic. The trade route from Dorestadt up to Limfjord was well sheltered by islands and from the eastern end of the Limfjord the course went down through either the Great or Little Belt, where the exit was commanded by the island of Samso. This was bisected by a canal, either to facilitate tribute or protection. In the east, Courland was subject to the Swedes and Staraja Ladoga was established in the last half of the century on the route leading to the rich fur areas of north Russia. The Danes and Swedes fought each other almost continuously. King Anoundus of Sweden, exiled in Denmark, got 21 ships from the Danes to add to 11

of his own and returned to attack Birka. In some way this was diverted, however, and he attacked the Slavs instead. (Ref. 42)

FINLAND

In this century the Finns, coming from the south and southwest, took present day Finland (at least Karelia) from the Lapps, who receded northward. As noted previously the Finns spoke a Finno-Ugric language, related to Lapp and Livonian. Their language, although not their blood types, suggest distant relation to the Huns and the Magyars who came from the upper Volga and Oka rivers. There were three basic tribes: the Tavastians, who settled in western Finland; the Karelians; and the true Finns who had originally settled on the south shore of the Gulf of Finland. They cleared the forest and drained the marshes, but the three tribes waged war on each other. (Ref. 43)

EASTERN EUROPE

SOUTHERN BALTIC AREA

Related to the Finns were the Borussians (Old Prussians), Esths (Estonians), Livs (Livonians), Litva (Lithuanians) and Latvians who settled the Baltic areas south of the Gulf of Finland. All of these people remained pagan for several centuries.

Throughout this and the next century the Goplani and Lendizi Slavic tribes competed for control of the central area of Poland, with the Goplani initially the more successful. Recent excavations at Mietlica show sunken houses, chiefly of one room, rather typical of early Slavic abodes. Few houses had identifiable hearths, but there were hearths and pits in the central area of the town, suggesting a practice of communal cooking. (Ref. 44)

RUSSIA

The word "Rus" may have derived from the Finnish Ruotsi, old Norse rodr, or may be related to Rolagen in Uppland, Sweden. There were two major trade routes of the Viking Scandinavians down through Russia. The first went from the Baltic directly into Lake Nevo (Ladog) then down the River Volkhov to the great Lake Ilmen, to Lovat and portage to the Dnieper. Along this route, great towns of Kiev, Smolensk, Novgorod and Staraja were founded. The second was a more easterly route, along the Volga where there were

already towns established for the fur trade and controlled by Bulgars and Khazars who charged a toll on traders. From the great bend of the Volga traders could strike out across the desert to reach the Silk Route somewhere near the Aral Sea. (Ref. 45)

Itil, on the mouth of the Volga and capital of the Khazars, became one of the great commercial cities of the world. The Arabs raided the Khazar homeland and put an end to the greatness of this Khanate, as the Volga Bulgars took advantage to assert their independence in the north of the area and the same was probably true of the Magyars, a Finnish tribe that had migrated to the steppe north of the Black Sea and had up until then been under Khazar domination. Their language was basically Finnish with a Turkish element added. These three oriental powers - Khazars, Bulgars and Magyars - remained friendly, with the Khazars still somewhat senior in the relationships. Reduced in size, the Khazar Khanate persisted until about A.D. 1,000 and its people did help to re-route the land trade route to the Far East north of the Caspian as Justinian had wanted to do. (Ref. 46) Elsewhere in Russia by the end of the century there was a Slavic Sea, with Slavic peoples spilling over into central Europe and the Balkans.⁵

5

D. 770, after the Umayyads were overthrown by the Abbasids, Persian coins were once again in circulation throughout Russia. The Khazars were again the chief intermediaries. (Ref. 47)

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Europe: A.D. 801 to 900

EUROPE

As this century opened, and particularly in A.D. 814, the year of the death of Charlemagne, Europe and Asia were recovering from the previous waves of barbarian invasions and a series of powerful empires extended in unbroken sequence from the Atlantic to the Pacific. The northern ones of Europe, however, - Frankish and Bulgarian - were really conquests of war bands and had very little stability. (Ref. 1)

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

The copper mines of Cyprus continued to be exploited. Over a period of some 3,000 years about 200,000 tons of that metal has been produced on Cyprus. The smelting requires charcoal in the amount that would be the equivalent of 150,000 square kilometers (58,000 square miles) of forest. Since all Cyprus totals only 9,300 square kilometers, the forests of the island must have been destroyed at least 16 times. (Ref. 2) The Turks took Crete from the Byzantine controlled Venetians and in 825 built a base with a surrounding moat, where Moslem pirates dominated until the middle of the next century. Malta was taken by the Moslems in 869. (Ref. 3, 4)

GREECE

The greater part of Greece was a part of Byzantium and, as such, shared in its temporary renaissance. Bulgaria took over part of northern Greece as a part of their expansion early in the century. Demonstrating the geological instability of the region, an

earthquake of 856 killed 45,000 Corinthians. (Ref. [5](#))

UPPER BALKANS

The Avars were conquered by Charlemagne in 805 and as the remnants were pushed out of Hungary into the upper Balkans, they were absorbed by the Bulgars and Slavs. In 811 the still pagan Bulgars, under Prince Drum, defeated and destroyed the Byzantine armies of Emperor Nicephorus and then they took over a large part of the peninsula, even including some of Greece. Their territory then stretched from the Danube to the Theiss and from the Carpathians to the Dniester. Originally a Turkish people, the Bulgars became, by repeated admixture, almost entirely Slavonic in race and language. The Bulgar Khanate, under Czars Malamir and Boris, continued to expand rapidly and their empire even included a great part of Hungary until about 893, when the Magyars overcame the light hold of the Bulgarians in that region. (Ref. [6, 7](#))

Bulgaria and Serbia were won for the eastern Christian Church in 870 and 879, respectively, through the efforts of Cyril and Methodius, Macedonian Brothers, who helped Khan Boris to evolve a Slavonic or Cyrillic alphabet, thus allowing the development of a national written language and culture. Faced with Slavonic sounds which did not exist in Greek, they stretched the Greek alphabet as far as it would go, then drafted one or two Hebrew characters and invented others. The Eastern Church (Russian, Ukrainian, Serbian and Bulgarian) still uses this Cyrillic alphabet. (Ref. [8, 9](#)) Farther for Western Christianity in 879, after they had made themselves independent of the German Empire in 869. (Ref. [10](#))

ITALY

We noted in the last chapter that Charlemagne had seized the Lombard Kingdom in 774 and this remained under his control until his death in 814. Italy, as a whole was under divided rule. By the Treaty of Verdun of 843, the Frankish heir, Lothar, got a long central strip of Europe along with northern Italy and down to the frontier of the Duchy of Benevento in southern Italy and he retained the title of emperor. A weak papacy, leagued with France, ruled a central area; the Venetians had their own kingdom; and various dukes ruled scattered provinces. Part of Sicily was conquered by the Aghlabids from Tunisia in 827 and by 840 they held most of that island and the heel of Italy. They were finally expelled by the

Byzantines at the end of the century. During the period of the Moslem raids, even Rome had been attacked. (Ref. [11](#), [12](#))

While eastern and southern Italy, in spite of the Moslem raids, remained for the most part Byzantine in culture, the rest of the peninsula developed a new civilization, a new language, religion and art from its Roman heritage. The Italian language became the most melodious of tongues; Italian Christianity was a romantic and colorful paganism, - a frank mythology of legend and miracle. Rome itself declined and science succumbed to superstition and only medicine kept its head up through the monasteries. Latin Christendom adopted the Iranian type of heavy armored cavalry and with this began to stem the barbarian tide and pave the way for counter-expansion in the next two centuries. A bright spot on the peninsula was Salerno, where a university with a medical school was founded, which soon became famous throughout Europe. (Ref. [13](#), [14](#))

CENTRAL EUROPE

GERMANY

The empire of Karl the Great (Charlemagne) was a theocratic church-state with his functioning as a priest-king and as an emperor. Included in his religious missions had been the conquest and conversion of the Saxons. He regarded the pope as simply his chaplain. (Ref. [15](#)) At the same time, his empire was actually an artificial construction and did not survive him. Nevertheless, in a sense, he saved civilization because through him the Atlantic world re-established contact with the ancient, Mediterranean culture. He did this by arranging for the collecting and copying of books. With the exception of 3 or 4 surviving original antique manuscripts, our whole knowledge of ancient literature has come only through the copying that began under Charlemagne. These copyists also developed the Carolingian script which has survived until today. Their books were works of art and overall splendid masterpieces. (Ref. [16](#)) The emperor died in 814, five years after the realm had been swept by famine. (Ref. [17](#)) The Carolingian Dynasty immediately declined as the empire was divided by his one surviving son among three grandsons - Pepin, Louis and Karl, all of whom died within 8 years. Their successors were weak leaders and many local wars broke out between rulers, nobles and church with resulting recurrent partitions of the empire. Finally by the Treaty of

Verdun (843) the original empire was officially divided into three parts, with Lothair keeping the title of emperor and a central area, extending from the Netherlands almost to Naples. Charles the Bald got the western area and Ludwig the eastern area and in this way France and Germany became dissociated. (Ref. 18) It was not originally a difference of race or temperament but a difference of language and tradition. The western branch was assimilated by the country-side Latin, which became French, while the Germanic group had retained their original Germanic tongue. The Franks in north Germany even differed also from the Swabians and south Germans. Ludwig actually was the first king of Germany, but the artificial divisions of the empire were still poorly arranged because they paid no heed to these growing regional differences. The monstrous territory of Lotharingia (French - "Lorraine") was to be disputed between France and Germany well up into the 20th century. The Italian part was also a continued problem area, with subsequent German emperors having to attempt to reconquer the region at frequent intervals for centuries.¹

1

The valleys of the Rhine and Meuse were relatively immune from Viking attacks, except for one major one in 863, apparently because Lothar and Lothar II of the middle kingdom, let the Vikings have the estuaries of those rivers. The Danish leader Harald and his nephew Roric were so treated, with Roric getting Dorestadt. (Ref. 19)

NOTE: Add Map 36: Division of Charlemagne's Empire at Verdun in 843

NOTE: Add Map 36: Division of Charlemagne's Empire at Verdun in 843

Map taken from Reference 97.

As the old Frankish kingdom disintegrated in the early century, the separate duchies previously present reappeared as independent political units. These were the stem¹ duchies of Frisia (Lowlands), Saxony, Franconia (along the Maine), Swabia, Thuringia (between the Weser and Elbe) and Bavaria. These were based originally on ethnic unity and this particularism made unification of Germany forever difficult. (Ref. 20)

In 857 there a serious outbreak of ergotism in which thousands of Germans died, poisoned by their daily rye bread which contained a fungus producing some 20 poisons (including LSD). The disease produced abdominal pain, delirium, gangrene and sometimes death, or alternately it caused an acute inflammation of the skin, driving people to insanity and giving it its common name of "Holy fire". (Ref. 21) The only physicians present were part of the monastic environment and much of their labor was devoted to prayer, laying on of hands, exorcising, use of amulets, holy oil, relics of saints and other elements of supernaturalism rather than to rational procedures. (Ref. 22)

By treaty in 870 Germany was extended from the Rhine to the Elbe. The limits between the Germans and the Slavs generally followed the Elbe between the North Sea and the mountains of Bohemia. Although this line of demarcation did not last for long, it has through the centuries assumed some political, economic and social importance. As noted previously, to the west of the Elbe is old Germany, to the east is new Germany. The latter became the area of the Junkers, with large estates dominating a servile peasantry, with a large Slavic element in the population. A skeleton of imperial power continued even after Ludwig's death. The last of the direct Carolingian line, Karl (Charles) the Fat, abdicated in 887. Three weak kings filled the next thirty year gap, until the rule was taken over in the next century by the Saxon kings.

AUSTRIA

Charlemagne's "Ostmark", bounded by the rivers Enns, Raab and Drau, with a fortress at Vienna, lasted until about 880, when the Frankish forces were defeated by the Magyars who had occupied Hungary and then moved into Austria. (Ref. 23)

HUNGARY

In the early century Hungary was lightly held by the Bulgar Khanate, but near the end of the century when the Magyars were finally squeezed entirely out of Russia by the Patzinaks (Pechnegi), they swept through the upper Balkans and took over and settled Hungary. The "native" Szekels were few and scattered and offered little resistance. The Magyars were basically a Finnish people who had an infusion of Turkish blood which had been added while they were living on the Don River and were joined by three hordes of the

Khazars from the Volga mouth. The Magyars were free horsemen, living in clans and tribes and using slaves taken from among the Slavs. They spoke the Ugric language of the Finno-Ugric group of Uralic languages. Formerly it was erroneously thought that these people were basically Mongolian or Hunnish, but this is not accurate and they came originally from the Ural Mountains area, not farther east. In Asia, they were called Ugri, from their Ugric language and from this has come our word "ogre". (Ref. [24](#))

CZECHOSLAVAKIA

Like the rest of Central Europe this area was subject to Charlemagne's religious wars early in the century. With fire and sword he preached the Gospel to Saxons, Bohemians and down into Hungary. Later in 870, Sviatopluk, a Moravian prince, united Moravia, Bohemia and Slovakia into the Kingdom of Moravia and held against further German aggression. It was during his reign that Cyril and Methodius brought Christianity of the Byzantine variety to the region. In the last years of the century, however, the German clergy redoubled its efforts and won back Bohemia and Moravia for the Latin Church. (Ref. [25](#)) The Czechs became dominant over all the Bohemian tribes, while Slovakia came under Magyar rule. (Ref. [26](#), [27](#))

SWITZERLAND

In this 9th century part of what is now Switzerland was included in Swabia and the rest was part of Transjurane Burgundy. (Ref. [28](#))

WESTERN EUROPE

SPAIN

Charlemagne conquered Catalonia in northeastern Spain but otherwise this country remained politically as in the 8th century, about half or less Christian and the remainder Moorish Moslem. The Christian princes lived in the high, barren northern mountains and the Basques remained in the central north by themselves, while the plains of Granada and Andalusia were the home of the Moslems and the Jews. Agricultural poverty and political disunity kept Christian Spain far behind its Moslem rival in the south and its Frank rival in the north.

The Spanish Moslem rulers continued to be the last remnants of

the Omayyad house. Hakam I added Mamluk slaves to the royal guard and continued to cruelly suppress all independent intellectual activity. His successor, Abd-er-Rahman II, was more peaceful to his own people and although his armies waged continuous warfare against the Christians, Cordoba attained its greatest splendor. The second university in Europe (Solerno was the first) was formed around the library of Khalif al-Hakim of Cordoba. It is said that he collected 400,000 volumes (equal to about 20,000 modern books) and read them all, making comments on the fly leaves. The mainstream of Greco-Roman learning thus came to Europe through Spain, with commentaries by both Moslem and Jewish scholars. Cordoba had paved streets, perhaps 500,000 inhabitants and 300 mosques. By about A.D. 900² paper mills had appeared in Spain. In the last half of the century, however, prosperity lessened and there was much turmoil and many local rebellions. (Ref. [29](#), [30](#), [31](#), [32](#))

NOTE: Map of The Iberian Peninsula

PORTUGAL

As is apparent in the small map above, Portugal was not yet a separate country but part of the province of Leon of Spain, ruled in greatest part by Moors.

FRANCE

Please see the section on GERMANY, page 484, for details of the collapse of Charlemagne's Empire. During the costly civil wars which followed that collapse of the Frank kingdom, the expanding tribes of Scandinavia invaded France in a new "barbarian" wave. All the cities of northern France were sacked again and again. Tours was pillaged five times in the last half of the century and Paris was hit twice and then burned on a third attack. In 859 a Norse fleet entered the Mediterranean and raided towns from the south along the Rhone. The Saracens had already taken Corsica and held most of the French Mediterranean coast through the next century. The result of all these raids and particularly those of the Vikings was a fragmentation of public authority and a great upsurge of feudalism as a means of protection. The peasant as a freeman virtually disappeared and society was polarized between nobles and serfs. In addition, the descendants of the first generations of French agents

of the Carolingians were not as loyal as their fathers and tended to identify with the particular interests of their own localities at the expense of the Frankish kingdom. As noted above, however, Charlemagne's Empire did not completely disintegrate until about 887 or 888 when it gave way to a large kingdom of "France" and a smaller kingdom of Provence in the south, while the Bretons still held their northwest peninsula. (Ref. [35](#), [36](#))²

2

In 845 an attack on Paris was prevented by the payment of 7,000 pounds of silver. In the next 20 years every major river in western Frankia was exploited by one or more Viking fleets. Soon they were based in the Loire and each year moved farther up the valley. This was the main area of Viking activity for 25 years, probably because of the weaknesses and rivalry of Louis' sons, Charles and Louis. In 862 Charles made systematic efforts to fortify at least the heart of his kingdom. After the death of Charles the Bald in 877 and then his son two years later, there was much political confusion and the Vikings returned with a large army and fleet. At one time 200 ships, loaded with prisoners, returned home to Scandinavia. Those Vikings who settled in Normandy did not speak a Scandinavian language for long and now there is no trace in Norman names. (Ref. [37](#))

The French language developed in this period. As early as 813 Charlemagne ordered sermons to be preached in *lingua romana rustica*, acknowledging this new language, which was nascent French. The six cases of classical Latin were merged into two cases, the predominant morphological characteristic of "old French". Twenty-nine years later came the first written text in French, a treaty known as the "Oath of Strasbourg" between Carolingian princes. (Ref. [38](#)) Sometime in this or the preceding century a university was founded at Montpellier and it soon had a rabbinical school of Spanish origin which taught grammar and later medicine. (Ref. [39](#))

THE NETHERLANDS AND BELGIUM

On the eve of the Viking period, this area was concerned with a growing commerce in coastal markets called "wics", the greatest of which was Dorestad (with others in England), dealing in supplies of furs, skins and walrus tusks. (Ref. [40](#)) In general, the Lowlands can

be considered as a part of the Frankish kingdom and France, at this period.

Frisia disappeared and the North Sea was controlled by no one until the Danish chieftains became rulers of this and various large areas of Flanders at the end of the century.^{3, 4}

³

It was later, when the Frankish empire was divided, that defenses were neglected and the Viking raids really started. The Dane Godfred was granted land in the Rhine estuary, to protect against other raiders, but Godfred was killed in 885 and afterwards there was very little trace left of the Vikings in the Netherlands. In Belgium a series of circular forts were built along the coast on each side of the Scheldt estuary, probably in the last years of Louis' reign. These defenses may have sufficiently thwarted the Vikings that they were diverted to start their serious attacks on England. (Ref. ⁴¹)

⁴

(Ref. ⁴²)

BRITISH ISLES

ENGLAND

Just before the era of the Viking invasions, participating with Dorestad as a "wic" market, was Hamwic, later to become Southampton. Early in the century Offa, of Mercia, sometimes known as "King of the English", bargained and dealt with Charlemagne apparently almost as an equal. But then the Danish Viking attacks began, first on the island of Sheppey in 835, continuing for thirty years of disturbance and destruction. Usually 30 to 300 Danish ships left home in the spring, raided during the summer and returned home to Denmark with the booty before winter. (Ref. ⁴³) After A.D. 835 hardly a year passed in which there was no reference in the Anglo-Saxon chronicle as to Viking attacks on England. (Ref. ⁴⁴) The year 865 was a turning point when that autumn a great Viking army landed in East Anglia, under Ivor the Boneless, to stay. In the meantime, however, King Egbert of Wessex had united most of the southern kingdoms under his control, including Wessex, the Cornish Welsh and the southern parts of both Mercia and Northumbria. (A.D. 829). After the Danes had taken the middle 2/3 of England by about 898, it remained for King Alfred, the Saxon, successor to Egbert, to finally defeat the Danes and

confine them to the northeastern part of the country in an area to be called the "Danelaw". Alfred's victory involved the use of a great fleet to meet the invaders' reinforcements at sea before they could land. Payments of money apparently helped in this confinement, however, and even after their defeat the Danes kept their own customs and laws while living nominally under the English king. Many Danes later moved south and became important in English government and the church. (Ref. 45, 46)5

5

The Vikings raided usually in small bands and were identified by their leaders, such as the armies of Olaf, Sven or Knut, rather than as Norwegians, Danes, etc., although the English called them all "Danes". Actually Norwegians attacked the north and west British Isles while Danes assaulted the southern North Sea and channel coasts. The first attacks were small, involving 3 to 15 ships. Later, when 60 or more ships were involved they probably came from new bases, such as in the Hebrides. In the years after 866 many raiding Scandinavians, faced with better defences on the continent and finding little left to plunder, turned again to England. In 865 they took East Anglia and in 866, taking advantage of a local civil war in Northumbria, they conquered York. Their army, led by several kings, then took eastern Mercia but was stopped by Alfred at Wessex. The Viking leader, Guthrum, then retired to rule East Anglia. (Ref. 47)

SCOTLAND

Thousands of second generation Anglo-Saxons, now called "English", were driven into Scotland by the Danish invasion and this resulted in a strong influx of Anglo- Saxon blood in the Scottish people. In the meantime, there was a Norse invasion of the islands and the north and west shores of Scotland and the main Pictish army was destroyed along with their last king, Eoghann. Kenneth Mac Alpin, alleged descendant of forty tribal kings, took this opportunity about 842 to unite the Picts and Scots, forming the small mountain kingdom of Alba (Albainn). After that union the Pictish culture disappeared. It is said that Kenneth murdered seven earls of Dalriada, kinsmen who might have laid a claim to his new throne. (Ref. 48, 49)

The Viking raids became a terrifying experience to the people of Scotland, as in other parts of Britain. They called those from

Denmark the "Black Gentiles" and those from Norway the "White Gentiles". Between 795 and 806 Iona was wasted three times and the loot taken was extensive. But the Norse made settlements, too. Norwegian jarls ruled the Shetlands, Orkneys and the Caithness. Ketil, sent by Norwegian King Harold Fairhair to the Hebrides, established himself as king. In the hills of Galloway, on the north coast of the Solway Firth, the Norse intermarried with the earlier settlers, creating a fiery and quarrelsome people called the Gallgaels. By the end of the century Kenneth Mac Alpin and his successors, a brother, two sons and two grandchildren had died and were apparently buried on Iona. (Ref. [50](#))

IRELAND

The Vikings raided Ireland and established some temporary Norse kingdoms, including Cork and Dublin, the latter established in 841 by Olaf, a Norwegian prince. This kingdom lasted some three hundred years and served as a base for further Norse raids. In addition to Cork and Dublin - Wicklow, Arklow and Wexford were all Viking towns. Irish monasteries were especially hard hit and destroyed, probably because these were of ten the only real communities and center of food storage. Actually the Irish themselves attacked more monasteries than the Vikings ever did. Conmacnoise, on the upper Shannon, was hit by native Irish at least twenty-seven times to the Vikings' eight. Three times it was sacked by Feidlimid mac Crimthainn, abbot-king of Munster, who plundered many of Ireland's greatest monasteries. Knowth, on the east side of the present Irish Republic, on the River Boyne, had become in recent centuries a site of importance, apparently as the royal residence of the Gaelic kings of Northern Brege. (Ref. [51](#), [52](#), [53](#))⁶

6

They got control of all the islands around Ireland and then made inland raids from those bases. After 847 the Irish began to win some victories and drove them out temporarily. After 850 there were only 5 attacks on churches in the remainder of the century. There were four possible factors in that situation: (1) The Viking bases were susceptible to counter-attack; (2) some churches paid tribute; (3) Frankia offered better opportunities to accumulate wealth; and (4) the Danes first hit Ireland in 851 and there followed some violent conflicts between them

and the Norwegians, so that there was little energy left for local devastation. (Ref. [54](#))

WALES

In Wales, pirate attacks occurred from Normandy until Rhodri the Great drove them off and gave the country a vigorous dynasty.

SCANDINAVIA

How did these Viking people suddenly leap onto the stage of European history to dominate it for some three centuries, when previous to about 800, they had been a rather obscure, somewhat barbaric group? The reasons for their domination at this time are probably several but, at least included, is the fact that these people had developed a mastery of ship-building and had nautical skills. In addition, a population explosion had occurred in their Scandinavian homelands as a result of warmer temperatures than usual (Little Climatic Optimum) with a resulting abundant food supply. Some have speculated that the raids, in part, were in retaliation for Charlemagne's and other Christians' persecution (Ref. [55](#)) At home in Scandinavia there were no striking changes, barring the population increase, to herald the Viking era. The social structure conformed to a norm characteristic of Europe. At the bottom of the scale was the slave (proel³), who might be anyone from a bankrupt local to a prisoner of war. The son of a slave was also a slave. Next in line were the free peasants (karls), not usually entirely free, but doing service to a proprietor.

Some were craftsmen, soldiers or peddlers. The top of the chain was the aristocrat (jarl) or chieftain, who was basically a warrior. During the Viking Age this class began to hold land from the king in a proto-feudal manner. The basic livelihood was from the land farming, cattle, horses, sheep and goats. (Ref. [58](#))⁷

7

There were several centers for long distance trade - Kaupang in Vestfold, Norway, Hedeby in Denmark, Birka in Sweden and Trusco and Straraja Ladoga as Swedish centers in Russia. "Cogs" were cargo boats, developed perhaps in this century and they had the characteristic Viking profile, with a sharp angle between the keel and

the stem. (Ref. 59)

The raiders, variously called Norsemen, Vikings or Varangians (in Russia), came from many parts of Scandinavia and were strong, ruthless, blond, Teutonic pirates, but in addition to raiding they also colonized and settled. They were organized with a complex law, had the ability to write and had a vigorous artistic style. (Ref. 60, 61) The Atlantic Vikings were chiefly Saxons, Angles and the kindred Danes and Norwegians, who sailed in long, black galleys, making very little use of sails. Their ships were long and slim, built of oak with symmetrical ends, long, true keel and overlapping wood planks with shell-shapes that allowed them to land in very shallow water. Each one did have a sail amidship, a side rudder and as many as 34 pairs of oars. Those Scandinavians who stormed down through Russia were chiefly Swedish. (Ref. 62)

NORWAY

At home in Norway in the first half of the century there were some 31 principalities, some of which were united by Halfdan the Black about 850. Then by 872 all Norway was conquered and united by Halfdan's son, Harold Fairhair, who reigned with his Queen Gyda for almost 60 years. We have mentioned that walrus ' tusks were in great demand in commerce in this period. A Norwegian, Ottar, sailed clear north to the White Sea in search of this sea animal. Kaupang was a thriving trade town in southern Norway from which Norwegians sailed to Iceland and later to Greenland and America. (Ref. 63)8

8

He encountered the Lapps who gave him much in the way of tribute, including 600 tame reindeer, skins, feathers, whale-bone and ship ropes from whale and seal hides. (Ref. 64)

SWEDEN

Although we have little certain information about the local political organization in Sweden at this 9th century, we do know that because of the prosperous commercial trade from the Arab world and the Russian plains, Sweden had many rich towns like Birka, on an island in the middle of Lake Malar.9

One was surely King Olef, but his power was limited and subject to two assemblies in Birka. Kings were military leaders. In 829 once such king asked the German emperor to send a preacher to Birka. In their attacks along the Baltic coast, the Swedes obtained large amounts of silver that was coming up from Transoxiana. (Ref. 65)

DENMARK

Early in the century the Danes seem to have been disorganized and dependent on Sweden, which apparently had the oldest monarchy of the three basic Scandinavian countries, although details are unknown. By the end of the century, however, Denmark had unity of its own under King Gorm and Thyra the Beautiful, his queen. The social order in Denmark was based on family discipline, economic cooperation and religious pagan beliefs. Hedeby, on the neck of the Juteland peninsula, was a thriving trade town and great commercial center. (Ref. 66) A recent reconstruction of a Viking house from Hedeby shows it had been made of wooden staves or wattle, plastered with mud and roofed with reeds or turf. There was a fire hearth in the middle of the main room, with iron cooking pots, upright looms for weaving, soap-stone lamps and bun-shaped smoothing irons for laundry. There was a central authority with public works and apparently extensive financial resources in the village. (Ref. 67)10

10

Frankish royal annals say that the Danish King Godfred removed merchants from Reric, an unidentified Slav territory, to his own lands. This was perhaps part of a fortification program which he built along the River Eider. The early Danish and Norwegian historians have much conflict in their writings of the early Danish political and military affairs and one must be somewhat dubious of all. The Danish historian, Sven Aggesen, makes a great deal of the activities of Queen Thyri, even stating that she conned the German emperor into paying her a vast sum and giving her credit for having the Danevirke built. We have noted previously, however, that this wall was constructed in the preceding century. (Ref. 68)

FINLAND

The Finns were now quite well established in what we now call

Finland but the armed Swedish merchants overran them on their way to Russia and they dominated the Finnish peasants throughout this period.

OVERSEAS SCANDINAVIAN CENTERS

Iceland, which may have been touched still earlier by Norse seamen and perhaps Irish, was at least re-discovered by Norwegians and Danes about A.D. 860 and settlers began to migrate there to live by 870, with settlement completed within two generations Wilson (Ref. 69) says that the first three Viking voyages of exploration into the Atlantic were by a Swede, Gardar Svavarson and two Norwegians, Naddod and Fiocki Vilgerdeson. (Ref. 70, 237)11

11

(Ref. 71)

EASTERN EUROPE

SOUTHERN BALTIC AREA

The Baltic area also received the raids of the Scandinavian Vikings and the Balts and Baltic Slavs all fell under the rule of a Swedish minority of armed merchants. About the end of the century the Lendizi tribe of Slavs began to dominate the Goplani and formed alliances with still other tribes in a coalition known as the Polani. Excavations at Mietlica, Poland, show iron and glass which were apparently imported in exchange for food stuffs, leather, wool and perhaps salt. This town, near the Notec River and Lake Goplo was probably a minor commercial center. There is evidence of cows, pigs, sheep, horses, domestic chickens, ducks and various wild game. (Ref. 72)

RUSSIA

Early in the century the eastern Slavs pushed eastward from Europe into the woodlands of central Russia, while the nomadic horsemen (Pechenegs and Magyars) rode westward across the southern steppe. (Ref. 73) Northern Russia had the same fate as the Baltic areas in that the Swedes established principalities at Novorod and Kiev in the heart of Slav territory, as well as a Black Sea stronghold at Tmutorokan (A.D. 825), challenging the Khazar trade route from

the Don River to Constantinople. This was just south of the Magyar territory and just west of the Khazar Khanate, which still occupied most of the Caucasus. To the north of the Khazars were the Volga Bulgars. The trade route between the various Swedish principalities made a loosely bound commercial and political empire called "Ros" or "Rus", the origin of which is still uncertain. (See page 465). The Swedes (called Varangians in the next century) did not take their women with them and they married locally, thus becoming Slavicized in 1 1/2 centuries, even in the case of the ruling, and princely families. These Rus spoke a Slavic language and part of their culture was Finnish. Excavations at Staraje Ladoga, Kiev and Smolensk have shown some Scandinavian material, but at the first named city (the only place where 9th century levels have been reached) the buildings seem to have been Finnish, rather than Scandinavian. The Swedes were tradesmen, not craftsmen and their presence in Russia was certainly influential, even if not completely dominating. (Ref. 74)12

12

The Karelians also collected furs in the Kola peninsula and even encountered the Norwegian Ottar there. There is little doubt that Scandinavians known as "Rus" established themselves in Russia in the first half of this 9th century, originally with the object of gathering arctic furs and slaves to sell down along the Volga. By the middle of the century Rurik controlled several bases in northern Russia at Izborsk, Beloozero and Novgorod. Then one group, led by Askold and Dir, went south and seized Kiev. They possibly attacked Constantinople in 860. Rurik died about 880 and was succeeded by a kinsman, Oleg, who overthrew Askold and Dir and became Prince of Kiev. He forced adjacent Slavonic tribes to pay tribute. (Ref. 75)

Eventually Kiev became the center of this enterprise and its rulers, the Norse Rurik and his descendants, may be said to be the founders of the Russian state. This Kiev principality embraced nearly all of the eastern Slavonic tribes. This group made six assaults on Constantinople within the next two centuries but in spite of these occasional wars, trade flourished between Kiev and Byzantium. Gradually Russia accepted a Slavonic liturgy and alphabet and the Greek Church. The Russian Slavs were described by the Byzantines as rough and primitive although musical, honest, hospitable, fierce

in battle and fond of hot baths. A major offensive against Byzantium in 860 was led by the Varangian Askold with Norse cavalry and probably Slav infantry. Askold's Kievan area then began to assume aspects of a true state. In about 880 Oleg, from the northern area, captured Kiev and first united the Swedish-Slav principalities. (Ref. [76](#), [77](#), [78](#))

In the meantime Patzinak (Pechneg) Turks had migrated from Central Asia to wedge themselves between the Volga Bulgars and the Khazars, squeezing the Magyars from the east as the Oleg Russian state pushed down from the north. They ended the Khazar control of the Russian steppe, although the latter remained important in that area until the next century. (Ref. [79](#)) The Magyars absorbed considerable Turkish blood from the Kavar branch of the Khazars. (Ref. [80](#))

In the far east of European Russia there was a Swedish market at Bolgar on the middle Volga where Muslims were eager to acquire furs and slaves which the Swedes could get in the northern forests. (Ref. [81](#)) It was thus that after about 882 Russia was subjected to powerful external influences for almost 500 years - first from the Vikings from the north, then from Byzantium with its Christianity and the Arabs with Islam from the south and southeast and finally, as we shall see later, by Mongols from the east.

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2. This date is from The Times Atlas of World History, (Ref. 33) but Thomas (Ref. 34) gives a later date at A.D. 1150
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Europe: A.D. 901 to 1000

EUROPE (Beginning the age of feudalism, chivalry and the rise of the German monarchy)

Europe's history now became a maze of alliances, treacheries, claims and acquisitions. Historians usually consider the 10th century almost as dark and barbarous as the 7th, but this is only from the political and written word viewpoint. 10th century art was as splendid and technically skilful as that of any other age. (Ref. [1](#)) Heavy iron horse-shoes which allowed hooves to tolerate wet soil had been brought into Europe from the east in the last century and by A.D. 1,000 they were cheap enough to be afforded by peasants; but still lacking an adequate yoke, horses could still not be used for plowing, harrowing nor even heavy hauling. (Ref. [2](#))

SOUTHERN EUROPE

Cotton reached the Mediterranean world via the Arabs, from India. (Ref. [3](#))

EASTERN MEDITERRANEAN ISLANDS

Byzantium troops took Candia, the northern Cretan city, from the Turks in 961 and the city was ruthlessly sacked. By 1,000 Genoese colonists had appeared on the same island. Other Mediterranean isles remained unmolested in the Byzantium Empire. (Ref. [4](#), [5](#))

GREECE

A part of Byzantium

UPPER BALKANS

The Bulgar King Simeon, educated at Constantinople as a monk,

was the first of his people to take the title of Czar. He extended his rule to Serbia and the Adriatic Sea and engaged in wars with Constantinople and Greece. The conversion of the Bulgarians to Christianity did not prevent their monarch from aspiring to the throne at Constantinople and he tried to civilize his people with Greek literature. After his death the country was weakened by civil strife and heretics converted about half of the population to pacifism and communism. Serbia recovered its independence in 931 but lost it again to the Bulgarian Samuel in 989.

But we are a little ahead of our story. In 963 the prince of Kiev, with Byzantine help, had annexed the eastern section of Bulgaria, which was in chaos at the time. By 969, however, led by Chichmanides, the western section managed to break away from the Kievan state and form an independent kingdom in the regions later to be known as Macedonia, Albania, the district of Moravia and some regions of Vidin and Sofia. Under King Samuel, Macedonia became the cultural center of the realm. Four years after Samuel's death the Byzantines had annexed his realm, however, and the First Bulgarian Empire had ended. (Ref. 6)

With regard to Serbia, Chaslav tried to unite the various mountain clans of Serbs in mid-century when they were somewhat out from under the Bulgarian yoke, but in the end the attempt was not successful.

ITALY

At the end of the last century there had been considerable confusion concerning who was "king of Italy" and the Holy Roman Emperor. The title changed hands repeatedly among the late Carolingian heirs. Arnulf, illegitimate son of Carloman, grandson of Louis the German, was crowned king of Italy in 894 and then emperor in 896. Louis the Child was elected king by the magnates in 900. Upon his death in 911 Conrad, Duke of Franconia was elected in the same way. Italy was without effective native rule throughout this 10th century. In approximately the same period there were still others claiming to be the emperor. There was Berengar¹, grandson of Louis the Pious, Guido of Spoleto, Lambert his son, and Louis of Provence, who was crowned emperor in 915. In the Germanic portion of the old Charlemagne Empire, King Henry I, called the Fowler, began his reign as the first Saxon king, but he avoided ecclesiastical coronation as emperor. But the "Middle Kingdom" of

the three-way split, which included northern Italy, was weak and soon fell to the stronger Germany as Otto I the Great, succeeded Henry. After some difficulties with the pope, he was eventually crowned as Holy Roman Emperor in 962 and claimed all central and northern Italy except the papal territory of Rome and the Sabine region. In the papal state confusion had reigned for some time, with the landed aristocracy dominating. Marozia, mistress of Pope Sergius III¹, controlled the Curia, imprisoned Pope John XI and took command of Rome until her son, Alberic II, could assume power.

In A.D. 950 the Mediterranean was almost entirely a "Muslim lake" and such trade as there was between east and west was in the hands of the Byzantine cities of Italy, such as Bari, Amalfi, Gaeta and Salerno and of course the independent Venice. Northern Italy was converted into a crisscross of irrigation canals for shipping goods. The Moslems were finally dislodged from their base on the Ligurian coast. (Ref. 8, 9)

The written Italian language can be said to date from A.D. 960. The old Latin final vowels were retained, but only one case.

CENTRAL EUROPE

GERMANY

While political fragmentation continued west of the Rhine, in the east a new Saxon Dynasty under Henry I and his son, Otto I the Great, extended influence over the German duchies and conquered the northern kingdom of Italy so that this Ottonian Empire emerged as an equal of Byzantium. By 925 this Saxon Dynasty had regained some territory from France, defeated the Danes and brought Bohemia and Moravia and the Elbe-Oder Slavs under their wing. Otto I married a daughter of Edward² of England and this dynasty and the related Salic-Frankish Dynasty then ruled Germany until the middle of the 12th century and led through a female branch to the Hohenstaufen emperors to follow that. The social structure was characterized by the political and economic supremacy of the dukes and counts, bishops and abbots, as representatives of the secular and ecclesiastical nobility.

Early in his reign Otto gave most of Bavaria to his brother, Duke Henry. Germany was soon invaded by the Magyars from their bases in Hungary, but Otto finally defeated them at Lechfeld, near

Augsburg, in 955, recovering the eastern Bavarian march and laying the foundation for the future Austria. The Magyar leaders were executed. (Ref. 10) It was after these battles that Otto invaded Italy and was finally crowned "Holy Roman Emperor" by Pope John XII, in 962, with central and northern Italy becoming an appanage of the German crown. This predominance of the German monarchy and the virtual eclipse of the French was a striking feature of the 10th century in Europe. Otto, with the help of his brother Bruno, Archbishop of Cologne, began a cultural revival. Late in life he learned to read Latin, but not to speak it. His court literary circle included Irish and English monks and learned Greeks and Italians. He did have some further trouble with Rome but did get his son coronated as Otto II and married to Theophano, daughter of the Greek emperor, Romanus II. Otto II (973-983) took five years to put down a revolt involving the Duke of Bavaria and Boleslav of Bohemia and then had to repulse an attempted Danish invasion. His infant son, Otto III began to rule in 983 under the influence of his brilliant mother, Theophano. As a young adult, in two expeditions to Italy at the end of the century Otto III decapitated Pope Crescentius II, deposed Pope John XVI and installed Pope Sylvester II. He then settled down in Rome, beginning a theatrical restoration of the splendors of the city, and alienating the populace. He died without heirs and was buried at his request beside Charlemagne, at Aachen. (Ref. 11)

AUSTRIA

In the first half of the century this area was controlled chiefly by the Magyars but after their defeat by King Otto in A.D. 955, the southeastern territories were given to Leopold of Babenberg as a reward for his help in crushing a Bavarian revolt. The Babenberg Dynasty then ruled Austria for the next 270 years, although nominally subject to the Holy Roman Emperor. In A.D. 996 the word "Ostarrichi" appeared for the first time in a document of the emperor. The word simply means "eastern realm".

HUNGARY

The Magyars, who dominated and populated Hungary, raided far and wide between A.D. 937 and 955, going over all central Europe and to Orleans and Tours in France, as well as south to Nimes and then down Italy to the tip of the heel, but they did not settle and

the disruption was short-lived. (Ref. 12) After they were defeated by the German Otto in 955 they took up Christianity of the Latin variety, as they were afraid of Byzantium. Throughout all, however, they retained their own Turko-Finnic (Magyar) language.

On the political scene, Arpad, who had led the Magyars into Hungary in about 907, was followed eventually by a great grandson, Duke Geisa, who established friendly relations with the Ottonian court and allowed some missionary activity from them. Geisa (also Geza) and his more famous son, Stephen (997-1038), welded the Magyars into a kingdom. Stephen, whose original name was Vajk, before his baptism, married a Bavarian princess and in A.D. 1,001 was crowned by the pope as King Stephen of Hungary³ (Ref. 13)

CZECHOSLOVAKIA

The Magyars of Hungary spent the opening years of the century destroying the Empire of Great Moravia. (Ref. 15) The creation of Bohemia (and Poland) by the Premyslid Dynasty was founded on agricultural development, suppression of tribal differences in spite of many independent tribal aristocracies and the influence of the Christian church. When Bohemia was early threatened by the Magyars, Miesko I made his country a vassal of Germany and then Bohemia emerged as a stable unit after 929 under Boleslav of the Premyslid line. (Ref. 16) Boleslav II founded the Bishopric of Prague, which resulted in the final conversion of the entire area, including Poland and Hungary, to Latin Christianity. Later in the century Bohemia became subject to the Polish ruler, as will be noted under EASTERN EUROPE, this chapter.

Lest we get carried away by the noble concept of kings and queens, nobles and bishops in this area of Europe, we should realize that these people were in many respects still fairly primitive and that cannibalism was not unknown. Some bands sold human meat labeled "pork" or "mutton", and this practice was to continue for centuries. (Ref. 17)

SWITZERLAND

Switzerland had no separate existence at this time with its territory split between the domains of the Saxon Dynasty and the rulers of Burgundy. The relatively inaccessible Burgundy area was raided by Vikings, Moslems and finally Magyars, all within about 50 years.

(Ref. 18)

NOTE: 38: The Holy Roman Empire And The Norman Kingdom in South Italy

Map taken from Reference 97.

WESTERN EUROPE

At the beginning of this 10th century the map of western Europe, in part as a result of Viking raids, was a mosaic of intricate, interlacing counties, communities, principalities and lordships, all part of the feudal system. By the second half of the century the Viking raids had diminished and western Europe recovered rapidly. The heavy mold-board plow came into general use and made a great increase in agriculture possible, as drainage was obtained. Four oxen and long fields were required for this type of plow. While the merchants of the other civilization of Eurasia were primarily caterers to the tastes of their social superiors and were accustomed to regulation and taxation from above in the "command" system, which we mentioned at the beginning of the chapter, the aggressive, ruthless and self-reliant ethos of western European merchants was profoundly different. The distinctive characteristics of subsequent western history arise largely from this fact. (Ref. 19, 20)

SPAIN AND PORTUGAL

Garcia, king of Leon, began an expansion eastward, building numerous castles in the area later to be known as Castile. The chiefly Berber armies of the Spanish Omayyad Caliphate periodically devastated the Christian kingdoms of both Leon and Navarre (Basque territory) but the Christian kings paid tribute and thus survived to eventually return the honors and attack the south. When this did occur, one reason was that sheep, which were vital to the economy of northern Spain, had to be taken south to winter pasture in the region held by the Arabs. Famines occurred in 915 and 929, probably due to the disease "rust" on wheat. (Ref. 21, 22)

In the Moslem area of the south the great city of Cordoba had 700 mosques, 3 public baths, a palace with 400 halls and rooms and

a library with 400,000 books, as we have previously noted. This famed library continued to draw poets and scholars from all over the Moslem Empire. Abul Kasim, of Cordoba, wrote the first illustrated book of surgery, named Al-Tasrif, which included descriptions of lithotomy, tracheotomy and thyroidectomy, among other procedures. Eastern Islam carried sugar cane to Spain and to Madeira and the Canaries, where later it became an important industry.

The Jews of Cordoba lavished much money to draw men of Jewish law and letters to the city in an attempt to establish a Jewish rebirth politically and culturally. The most famous Jew of this era was the physician and politician, Hasdai ibn Shaprut, famed as a healer who translated medical works of the Greeks into Arabic, but he was also secretary and ambassador to Caliph Abd-er Rahman III (912-961), greatest of the Moslem rulers in Spain. He was the son of a Frankish concubine and a grandson of a Basque princess. Hakam II, caliph from 961 to 976, was overthrown by a bureaucrat first minister, Al Mansur, who became a dictator. After his death, the caliph deteriorated. (Ref. [23](#), [24](#), [25](#))

FRANCE AND NETHERLANDS AND BELGIUM

For most of this century in the west Frank kingdom of France there was a gradual decrease of royal power and the development of a strong feudalism, chiefly because of the competition for the crown by the Carolingian and Robertian houses. The Carolingians kept control early, although Charles III, ruling from Laon was the last one with truly effective power. Viking, Magyar, and Moslem assaults all contributed to the royal downfall, as Charles III, called Charles the Simple, was unable to expel the northmen from the mouth of the Seine. In 911 he finally had to give the Viking leader, Rollo, all of Normandy in exchange for Rollo's baptism and oath of fealty. Actually the Viking chief took the oath lightly and filled up Normandy with Scandinavian immigrants, chiefly Danes. Although most historians have labeled Rollo (also Rolf) a Norwegian, Lauring (Ref. [26](#)) says that he was of Danish royal family origin. The last of the Carolingian kings, at least in name, was Louis V and then Hugh Capet of the old Robertian House of Burgundy was elected king and started the new Capetian Dynasty in 987. France was now an independent kingdom, no longer subject to the Holy Roman Empire and so recognized by Otto III as a reward for the ceding of Lorraine

to the Germans. Capet could speak no German and was the first French-speaking king. Indicative of the situation throughout most of Europe, France, even as a rather privileged country, still suffered 10 general famines in this century. (Ref. [27](#), [28](#), [29](#), [30](#))

BRITISH ISLES

ENGLAND AND WALES

The 10th century in England saw a rebirth of monastic life and learning and the beginning of native English literature. Alfred's son Edward (899-924) and grandson Athelston (or Ethelstan) (924-939) carried on the fighting on the frontier, making inroads into Daneslaw and finally conquering almost all of it. The last Scandinavian king of York was Eric Bloodaxe, who was expelled in A.D. 954. As the Danelaw was absorbed, the shire system was extended to it with the old Danish boroughs as a nucleus. The old clan organization was superseded by a quasi-feudal system whereby each man had a lord who was responsible for him at law. The great earldoms began to appear. England, as we know it today, began then to take shape as the boundary between England and Scotland was set at Tweed and Edgar was coronated as king of England in Bath in 973. When Edgar was only 15 years of age, however, he was assassinated in order to make way for Aethelred. (Ref. [31](#), [32](#))

For awhile the English kings got homage also from the Welsh and there was stability across the island. In about 980, however, the Vikings attacked again and the new Saxon king, Aethelred the Unready, failed to meet the challenge of the professional Viking army under Sweyn Forkbeard. Both Norwegians and Danes were involved in these attacks at the end of the century. Toynbee (Ref. [33](#)) feels that these attacks actually stimulated the development of the definitive kingdom of England (Ref. [34](#), [35](#), [36](#), [37](#))¹

¹

[38](#)) says that the Danish forces which invaded Aethelred's England also included men from eastern Sweden. The rulers of Wessex and Mercia defended their territories well

SCOTLAND

King Constantine II, grandson of Kenneth Mac Alpin, along with kings of Strathclyde and Northumbria, accepted vassalage to

Athelstan when he was the English king. Constantine then abdicated in favor of his cousin, Malcolm, who became the 8th king of the Alpin line, most of them having been exterminated by murder. Acknowledging that he was the English king's vassal, he was ceded Strathclyde, although he had to terrorize the people there and burn their towns to get their acknowledgment. But Malcolm was also soon dead from poison and six more Alpines were king before the century was over, all meeting violent deaths. (Ref. [39](#))

IRELAND

The Norwegian kingdom continued to control Dublin and various northern islands and in addition the Vikings established Limerick about A.D. 920. The native Irish remained amazingly quiescent during this century. (Ref. [40](#))²

2

The new Dublin rulers coveted the greater wealth of Northumbria and they tried to gain control of the Scandinavian Kingdom of York, but without much success. After the middle of the century the Viking leaders played only minor roles in Irish politics. (Ref. [41](#))

SCANDINAVIA

As this century progressed the Scandinavians pretty well stopped their piracy and replaced it with European trade. In their written language, the runic characters were now generally abandoned as Christianity brought additional literacy to the area through a handful of English and Saxon missionaries. It was only at that time that the various Scandinavian states finally emerged as organized and even aggressive entities. (Ref. [42](#))

NORWAY

Haakon the Good, educated at the court of England's King Athelston, tried to introduce Christianity in Norway but made no headway and this religion had to wait for Olaf, son of Tryggve, as he became king in 995 and made the country Christian by the sword. Olaf, himself, remained polygamous. Shortly thereafter in A.D. 1,000 Norway was conquered by Sweden and Denmark, in the

first of many inter-Scandinavian wars.

In the battle of Svolder, Olaf was defeated while sailing in his great Viking ship with 34 rowing seats⁴ and in apparent remorse, he jumped into the sea and was drowned. (Ref. [43](#))

Weaponsmith was one of the most admired skills of all Northmen and a superb group of tools found in a Norwegian weaponsmith's grave of this century attests to the wealth and status of such craftsmanship. Vikings also carved jet, amber and bone into small ornaments. (Ref. [45](#))

SWEDEN

There is less information available about Sweden in these years than from the other northern countries but we do know that it was gradually united under the kings of Uppland towards the end of the century and that Olaf Skotkonung gained control about A.D. 1000, became a Christian and ordered his subjects to do the same, by baptism. (Ref. [46](#))

DENMARK

King Gorm ruled the major part of Denmark during the first decades of the century, followed by his son Harold Bluetooth. Otto of Germany marched up into Jutland and then marched back without actually gaining any land, but Harold saw the possible danger from the Germans and combined the various smaller kingdoms of the Danes under his one rule, advising them to stay at home and protect their homeland. The Viking raider element in the population did not like this advice and they chose Harold's son, Sweyn Forkbeard, as their leader. Father and son battled at sea (as was the custom) with neither winning but Harold was mysteriously killed that night. It was Sweyn, then, who later battled and defeated the Norwegian King Olav Trygvesson at sea. Sweyn sent fleets westward for years, extracting the Danegeld (a type of "protection" racket) from Aethelred of England. (Ref. [47](#), [48](#))³

3

The history of Sven Forkbeard's reign is actually obscure. (Ref. [49](#))

FINLAND

No special change in Finland in this century.

OVERSEAS SCANDINAVIAN CENTERS: ICELAND AND GREENLAND

By 934 Iceland was as thickly settled as it would be until World War II, with perhaps 50,000 to 60,000 people and a great literature accumulated. In A.D. 1,000 the Allthing (Parliament) formally adopted Christianity. One-half the people in Iceland were from Bergen, Norway, having fled from the tyranny of Harold Fairhair in the previous century. Sailing from Iceland, but originally from Norway, Bjarno Herjolfsson visited the coast of North America in 985 and a Norwegian colony was established on Greenland by Thorwald and his son Eric the Red of Jaeder, Norway about A.D. 1,000. (Ref. [50](#))

EASTERN EUROPE

SOUTHERN BALTIC AREA

Some six tribes in Poland were finally united early in this period under the domination of the Polani Slavs with Meiszko I as the first historical ruler of the Polish people. The German Otto had previously subdued many Polish dukes, so in order to avoid further conquest by the Germans, Mieszko placed Poland under the Latin pope. In this attachment with Latin Christianity, Poland, Bohemia and Moravia differed from all the southern Slavs. Subsequently Mieszko resisted Otto II's armies and established the Polish border along the line of the Oder River and the Baltic Sea. His daughter married the king of Sweden and then she later married the king of the Danes and was the mother of Canute, of whom we shall hear much more in the next chapter. The chief city of Poland was Gniezno.

Boleslav I, ruling from 992 after Meiszko's death, was one of the founders of Polish greatness, conquering Moravia, part of Silesia and even Cracow. He had an efficient military machine and laid the basis for an good administrative system. He gained further access to the Baltic by conquering eastern Pomerania. (Ref. [51](#)) Around various feudal centers having local princes, artisan villages developed, each dedicated to a single industry, such as making barrels, or gold-smithing, or horse-breeding. Kruszuica was one of these complexes which developed very rapidly. (Ref. [52](#))

RUSSIA

The Scandinavian merchants were still prominent in the river trade in Russia. Maureen Green (Ref. 53) quotes the Arab historian Ibn Fadlan, writing of the Vikings' arrival on the Volga in 922: "Never had I seen people of more perfect physiques. They are as tall as date palms, have reddish hair and fair skins. Every man carries an axe, a sword and a dagger, and is never seen without them". But he added: "They are the dirtiest of God's creatures."

The Slavonic tribes about Kiev (the Varangian principality) were loosely united as "Rus" Thomas (Ref. 213) says that the first Grand Duchy of Kiev resembled the East India or South African Companies, only under Viking instead of English lords. Oleg and later Igor fought to the gates of Constantinople and forced various treaties with Byzantium. Igor's son, Svyatoslav, was the first Kievan prince to bear a Slavic rather than a Scandinavian name. Igor's widow, Olga, ruled for their child-son and introduced tax and administrative reforms which struck down the old tribal systems, and in various communities, types of parliaments were established. In addition to the upper classes (the families of princes, bodyguards, courtiers, etc.) and the working class of freemen and the slaves, there now appeared other classes such as traders and artisans and merchants. Illiteracy dropped. Although Olga became a Christian, with ceremonies in Constantinople in 957, Svyatoslav remained a pagan when he took the throne. He led the Rus in plundering the Khazar capital on the Volga but this was not difficult as the formerly war-like Khazars had largely become merchants and farmers. As the Grand Prince Svyatoslav attempted to destroy these peaceful people in 962 and 963 he only opened up the way for the fierce Pechenegs, who then dominated the southern Russian steppe, and who finally killed the Kievan prince.⁴

4

Ibn Fadlan originally encountered the Rus in Bulgar in 922 and noted the Scandinavian custom of cremating all the dead in boats. Those early Rus were traders offering slave girls and furs, but by the end of the century they also had amber, arrows, swords, falcons, wax, honey and walrus teeth. Additional information about the early Rus rulers is given by Sawyer. (Ref. 54) It was in 907 that Oleg first attacked Constantinople and obtained trading privileges. Igor, who took over in 913, was probably a direct descendant of Rurik. Although Svyatoslav conquered Slavs, Balts and Finns and attacked Bulgars and Khazars he

could not beat the Byzantines and was forced to supply them with mercenaries, which were called "Varangians"

After six years of fratricidal war Vladimir Svyatoslavich (980-1015) of Great Novgorod, with the help of Viking warriors, became the ruler of Kiev and the groom of a sister of the Byzantine Emperor Basil II, thus making Russia a daughter of Byzantium. Through this marriage and trading links, the Greek Christian faith made considerable inroads into the Russian state. (Ref. 55, 56, 57, 58)

The original Georgian kingdoms had not reappeared after the Arab withdrawal although in 978 Abasgia re-christened herself "Georgia" in a bid for rekindling of old Georgian patriotism. (Ref. 59)

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2. Alfred's son but not designated as Edward I
3. Stephen was canonized in 1083. (Ref. 14)
4. This was the ship "Long Serpent", which may have held 200 warriors and rowers and may have been the largest Viking ship ever built. (Ref. 44)

Europe: A.D. 1001 to 1100

EUROPE

The ages of feudalism and chivalry continued, but under most classifications the "Dark Ages" ended toward the end of this century and the true "Middle Ages" began. Three classes existed in the population of most of Europe at this time:

1. the nobles, who fought
2. the clergy, who prayed
3. the peasants, who worked

(Ref. 1) The West slowly began to develop new sources of energy in the form of wind- and water-mills which could produce from 2 to at most 10 horsepower. These undoubtedly played a part in Europe's first age of growth along with the revival of towns and a new rural vigor, all of which marked the beginning of the continent's rise to eminence. (Ref. 2) A growing monetary economy was also evident. The medieval town was a closed city, self sufficient, exclusive, jealously guarding its confines and its citizenship. The defense against plunderers fell to the small group of knights who rode expensive war horses and had been trained since childhood in the use of arms and armor. The latter were produced by specialized craftsmen about which little is known. But this knightly society proved itself capable of far-reaching conquest and colonization, an example of which we shall see in the Norman invasions.

The bloodshed accompanying the violent period of knighthood seemed well accepted by all peoples north of the Alps. (Ref. 3)

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

These islands remained essentially under the control of Byzantium although there was some infiltration by Genoese and Turks.

GREECE

In the early part of the century Constantinople and Greece attempted to regain prestige by resuming the Byzantin-Bulgarian Wars and they did succeed in reconquering most of the Balkans. In the middle two-thirds of the century, however, Greece was caught up in the turmoil associated with the multiple changes of control of the Byzantine Empire as the military commanders, the great landowners and the bureaucracy struggled. The year 1081 was a fateful one for the entire region. The Byzantine general Alexius Comnenus revolted with a force of mercenaries, seized Constantinople and plundered it, while at the same time Normans under Robert Guiscard were landing in Epirus at the northwest corner of Greece. While the Normans besieged Durazzo, Alexius bought the support of the Venetians with extensive trade privileges, but even so, Guiscard defeated the emperor in the battle of Pharasalus and went on to finally take Durazzo. Robert and his son, Bohemund, then attacked various sites on the peninsula, including Corfu, Castorias, Larrissa and Nicopolis. Their advance on land was finally halted by guerrilla tactics of the natives, who hated the "Latins" and by Seljuq cavalry hired by the emperor. In 1085 the Normans were also defeated at sea by the combined Byzantine and Venetian fleets. (Ref. [4](#), [5](#))

UPPER BALKANS

It was a bad century for the Balkans. First the region was conquered and made a Byzantine province (1018) so that the First Bulgarian Empire came to an end.

Many of the Bulgarian noble families settled in Constantinople and merged with the Greek and Armenian aristocracies. Next, in about 1027, came the Patzinaks, invading from north of the Black Sea. They were finally driven back over the Danube by Byzantine general, Constantine Diogenes. Lastly, near the end of the century there were several catastrophes. In 1083 all of Macedonia up to the Vardar was conquered by the Normans and in 1086 a religious heretic group, the Bogomils, obtained support of the Patzinaks and Cumans and defeated Alexius and a large army. The Cumans then

ravaged the entire eastern Balkan region as far as Constantinople itself, when the emperor then bought them off and used them in 1091 to annihilate the Patzinaks in the battle of Leburnion. The final blow to the Balkans at the end of the century was the sacking by the 1st Crusaders, as mentioned at the beginning of this chapter. By this time Hungary had absorbed Croatia and Dalmatia while the Patzinaks were squeezed into a small area of old Bulgaria between Hungary and the Byzantine territory. On the western coast, Byzantine Slav cities like Zara (Zadar), Trau (Trogir) and Regusa (Dubrovnik) carried on a thriving commerce with the Moslem East. Soon Venice was to conquer Dalmatia with a mixed Dalmatian-Venetian culture resulting. (Ref. [6](#), [7](#), [8](#))

ITALY

Through most of the Middle Ages Italy was divided into three spheres of power as follows:

1. The northern and part of central Italy, notably Tuscany, belonged to the Holy Roman Empire of the German kings and was known as "Regnum Italicum"
2. Rome and the rest of central Italy was subject to the popes
3. Southern Italy and Sicily were together as a separate kingdom called "The Two Sicilies". (Ref. [9](#))

For awhile the Saracens were in control of Sicily, but they were expelled and replaced near the end of the century by the sea-going Normans who roved the area as pirates and robber-captains. Many came south in bands by land through the Rhineland and Italy, proper, also. Robert Guiscard, one of their leaders even crossed the Adriatic and captured the Byzantine stronghold at Durazzo, as noted in a previous paragraph. Overall it took the Normans about 20 years to completely take Byzantine Italy and Sicily, so that it was in 1071 that the last Italian possession fell to these raiders. (Ref. [10](#), [11](#)) In order to balance the power of the German emperor, the Cluny pope, Hildebrand courted not only the counts of Tuscany and the Lombards of north Italy but even the Norman conquerors in southern Italy.

There was an upsurge of commercial activity in the Mediterranean with the principal carriers being the Italian merchants of Venice, Genoa and other ports. (Ref. [12](#)) Venice

compensated for the decline in power of Rome and Ravenna by shrewdly accepting a form of Byzantine suzerainty under cover of which it monopolized east-west trade for awhile. During the century, however, Venice did lose some commerce to Milan and other port cities. The main trade objects going from Europe to the East were amber, furs, fish, tallow, honey, wool and wine. (Ref. [13](#), [14](#), [15](#)) It so happens that China had a marked increase in maritime business at this same time. Pisa occupied Sardinia in 1050 and Corsica in 1077.

The medical school at Salerno, originally founded by Benedictine monks of Monte Cassino, although it was remarkably free from Christian dogmatism, reached its peak as a traveler from the Near East and India, known as Constantine the African, arrived to transfer the great works of learning from Arabic into Latin. This included the works of Galen. At Salerno, they developed the "Regimen of Health" which was to be disseminated throughout Europe by returning crusaders who visited there for treatment of illnesses and wounds. This formed the basis of much of European medicine until almost the end of the 16th century. The basic premise of this regime was a balanced diet with a parity of the "four humours"- air, fire, water and earth - or the body counterparts - blood, bile, phlegm and black bile. As an example: the elderly and children always suffered from an excess of water/phlegm, so anything cold and moist fruit was forbidden¹.

CENTRAL EUROPE

Before A.D. 1000 perhaps 4/5 of Europe north of the Alps and Pyrenees was covered by dense forest so that communications and trade was greatly impeded except along the rivers and over certain passes. By A.D. 1000 the population may have reached 30,000,000 and in the next 150 years it increased another 40%. After the cessation of the Viking raids, the economic recovery of Europe was dramatic as new land was cleared, there was an increase in local trade and local "fairs" made their appearance. The use of iron plows may have made food more abundant, although intermittently famines still occurred in France and England. (Ref. [17](#), [18](#))

GERMANY

In 1002 Henry of Bavaria, became Henry II, King of all Germany

and in 1014 he was crowned Holy Roman Emperor. Conrad II followed in 1024 as the first Salic Frank emperor and he added parts of the Kingdom of Burgundy and present day Switzerland to the empire. Henry III (Salian or Franconian), crowned in 1039, brought the empire to its zenith and Germany was the most prosperous region of Europe. The church was the educator Germany and in essence its administrator, also. Following Henry III's death, however, internal troubles developed, including a civil war with the opposition led by Rudolf of Swabia. Henry IV became the German king at age 6 years and his mother Agnes was regent for 9 years. During this time nobles and clerical magnates appropriated the royal resources and sovereign rights freely, dealing the final blow to the monarchy. This was also the time when Pope Gregory VII, Hildebrand, challenged the right of kings to appoint bishops and demanded that the emperor give up this power of appointment. The pope aligned the church with feudal estates and city-states, which led eventually to the collapse of the empire. When Rudolf died some of the civil strife ceased and the Franconian ruler again became temporarily more powerful, although the struggle with the papacy continued with the pope alternately excommunicating the emperor and the emperor appointing an anti-pope - activities which carried well into the next century. (Ref. 19) To return for a moment to Bavaria, in 1070 the now Emperor Henry IV gave the Bavarian fief to Guelph (also Welf) d'Este IV, who began the Guelph Dynasty.

In this century the German drive toward the east took two different lines. There was expansion by colonization along the shores of the Baltic, up the valleys of the Oder and Elbe rivers and down the plains by the Danube. German speaking cities and monasteries were founded throughout these areas with subsequent extension through Bohemia and Silesia. The second method was political expansion. By 1100 the boundary of the empire had been shifted from the Elbe to the Oder and this new territory eventually became the Kingdom of Brandenburg. Frequent uprisings of Slavs prevented significant growth in this century, however. (Ref. 20)

The towns of medieval Germany, as in all Europe, were relatively small and closely surrounded by grain fields. Pigs roamed the streets which were so dirty and muddy that they had to be crossed on stilts in the areas where no wooden bridges were available. At the time of fairs the main streets of Frankfurt were covered with

straw or wood shavings. (Ref. [21](#)) (Continue on page 582)

NOTE: Insert Map 39: Europe in 1100

AUSTRIA

German-speaking people were now the major element in the population of Austria. Although under the suzerainty of the German Empire, it was ruled locally by the Babenburg family.

HUNGARY

As the century opened Hungary, under King Stephen, was a member in good standing of the Christian nations. The descendants in the male line of the old Magyar conquerors made up the body of freemen, having special positions and paying taxes only to the church. Slavery continued and the freed slaves and foreigners attained an intermediary position, paying dues to the king for their land. Upon Stephen's death in 1038 there followed a long series of disputes for the throne which lasted for the remainder of the century. This dynastic warfare did much harm to Hungary, not only because of the blood and devastation but because some of the contestants called in foreign help, German and Polish, leading to political degradation and losses of territory. Christianity was retained, although there were some rebellions of the old Magyar pagans against the tithe, one occurring immediately after Stephen's death and the last one in 1063. At the end of the century the throne went to Ladislas I, a powerful protector of the church. Foreign monks, including Germans, French and Italians, did help to raise the cultural standards of the country. As will be noted on the preceding map, by 1100 Hungary controlled Slavonia and Croatia, most of what is modern Romania, the southern part of current Czechoslovakia, the northern part of present day Yugoslavia and Dalmatia. The Hungarians had ready access to the Adriatic Sea. (Ref. [22](#))

CZECHOSLOVAKIA

Although Bohemia had most of the gold ore that was available in the West, it could not really capitalize on this potential wealth because of extraneous pressure from the Poles on the north and the Hungarians on the south. Boleslav I, creator of the Polish state, took

Prague in 1013, then in 1034 Bretislav I of the same country made himself Duke of Bohemia. Still another Polish king, Boleslav II, conquered Slovakia. Nevertheless, Bohemia did retain a kingship, with Spytihnev ruling from 1055 to 1061, followed by Vratislav II. (Ref. 23) By 1100, however, as we have seen, the Hungarians took over the entire southern part of present day Czechoslovakia.

SWITZERLAND

A portion of present day Switzerland, along with part of the Kingdom of Burgundy, was added to the Salic Frank Empire of Conrad II, early in the century.

WESTERN EUROPE

Western Europe was the chief contributor to the 40% population increase in Europe in this and the first half of the next century. The Cluniac reforms raised the western monasteries beyond their previous level, so that they became oases of peace, learning and stability. (Ref. 24)

SPAIN

Early in this century Jews of wealth and culture everywhere soared to positions of influence in Spain. Samuel ibn Bagrela, skillful Hebrew poet, superb Talmudist, master stylist in Arabic and astute military strategist and political administrator, rose to be vizierate of Granada in the Moslem area from 1030 to 1056. When the tables were turned and anti-Semitism returned, however, he was massacred. (Ref. 25) There were four main principalities in Spain, which can be described as follows:

Moslem Spain in the south As previously noted this had been an area of great prosperity and culture, but in this century civil wars between Arabs and Berbers became endemic, with the latter proclaiming independence in the south and west. They were joined soon by some of the eastern seaboard people so that only a shell of the Omayyad Caliphate remained in central Spain and even it collapsed about 1031. The great Al Hakim library (see page 487) was dispersed or destroyed. Several petty dynasties were founded on the ruins of the Omayyad Caliphate but after Alfonso VI of Castile took Seville, Yusuf-ibn-Tashfin, of a new Almoravid power in North Africa, was called to help and he did – inflicting great losses

on the Christians at Zalacca in 1086. Ibn-Tashfin then returned to Africa because of pressing problems there, but he was called back again in 1090 and at that time he made himself lord of Spain. As is apparent from the remarks above, part of the Moslems' troubles was the presence of so many diverse, often antagonistic factions, such as Yemenites, Syrians, Persians and Berbers. In spite of their difficulties and eventual withdrawal, the Moslems greatly influenced Spanish institutions, character and psychology, culture and language. (Ref. 26, 27, 28)

Castile in the northwest Upon the death of Sanche the Great (originally from Navarre) Ferdinand I of Castile assumed the crown in 1035, conquered Leon in A.D. 1037 and then reconquered a good deal of Portugal from the Moors. Alfonso VI captured Seville and Toledo and installed his son-in-law as the Count of Portugal in 1093.

THE IBERIAN PENINSULA

NOTE: Insert of the Iberian Peninsula 1037 and c.1100

Maps taken from Reference 97.

It was the aggressiveness of Alfonso VI that precipitated the Moslems' call for help to the Almoravids in North Africa with their alleged 150,000 horse and 3,000 foot soldiers. A Castilian, Rodrigo (Ruy) Diaz, called "Cid" by the Moslems, initially was in the service of the Castilian kings, but after trouble with Alfonso VI he was exiled twice and finally went over to serve the Moslem king of Saragosa, which was an independent emirate in northwestern Spain². He eventually became the ruler of Valencia and remained as such until his death in 1099. Although cruel, selfish and proud, the legends about him resulted in his ultimate acceptance as a national hero. Among other accomplishments, he founded the world's first leprosarium. At that time in Spain a horse cost the equivalent of 50 oxen. French influence began to penetrate into the country through the Cluniac monks and Toledo eventually succeeded Cordoba as the center for translation and exchange of Mediterranean scripts and ideas. (Ref. 29, 30, 31, 32)

Barcelona in the northeast This remained as an independent area.

Aragon and Navarre in the middle north The Basques of Navarre expanded both at the expense of Christian Leon and the Omayyads, but late in the century when the Arab emirate of Seville

broke the Berber hold on the south and pushed northward and the new Kingdom of Leon and Castile again expanded on the western border, Navarre was more or less forced to join Aragon for self defense (A.D. 1076) (Ref. [34](#))

PORTUGAL

Portugal began its separate existence as a fief under Count Henry of Burgundy, when the area was given to him by Alfonso VI after it had been retrieved from the Moors.

FRANCE

Paris, as a city of philosophers, had become the center of learning in Europe.

The University of Paris was an outgrowth of the cathedral school of Notre Dame. At the same time the Jews of the cities of France, as well as Germany, established academies which developed the Ashkenazic Culture. The missionary zeal of the Crusaders in 1096, however, was turned on the Jews and they were killed or banished to ghettos.

In typical feudal style France became divided into seven main principalities, each ruled by counts or dukes and Normandy was one of the greatest of these. The Vikings had become French in speech and laws and as a race of "hybrid vigor"[3](#) these Normans administered the best province in Europe. William the Conqueror, contemporarily called "the Bastard", became chief of the Normans and in the last half of the century invaded England, since by marriage he could be considered heir to the English throne. (Ref. [35](#), [36](#)) Another province, Burgundy, had as its last independent king, Rudolph II, who made Henry of Bavaria his heir. (Ref. [37](#)) With initial support of Normandy, the original Capetian line continued with Henri I as official king of France from 1031 to 1060. He was an active ruler, although illiterate, and he married the well-educated, cultured Anna Yaroslavna, daughter of the Duke of Kiev[4](#), possibly with an eye to helping the sliding Capetian fortunes. Upon Henri's death in 1060 Philip I became the monarch over the entire feudal realm, but as was inherent in this organization, his power was chiefly in name only. Philip was excommunicated in 1095 by Pope Urban II for adultery. The idea of knighthood spread in this century from France to the other European areas of England, Germany and Spain. An uninterrupted food supply continued to be

a critical issue and France had 26 general famines in this single century. (Ref. [39](#), [40](#))

THE NETHERLANDS AND BELGIUM

Upon the break-up of Charlemagne's empire the Netherlands had originally fallen to the Duchy of Lower Lorraine, but this again split into smaller feudal states.

In this and the next two centuries one of the most powerful of these was controlled by the "Count of Holland". (Ref. [41](#))^{1, 2}

¹

(Ref. [42](#))

²

For two centuries his successors claimed authority over the Hebrides, under overlordship of Norwegian kings. (Ref. [43](#))

BRITISH ISLES *** (Page 1196)

ENGLAND

In 1002, on the night of St. Brice, King Aethelred made a very foolish move, in that he had all Danes who were outside of Danelaw murdered. Among those killed was the sister of King Sweyn of Denmark. This sealed England's fate and throughout 1003 and 1004 Sweyn remained in England, ravaging and laying waste far and wide. Finally in 1007 Aethelred produced a Danegeld of 36,000 pounds of silver and Sweyn went home, although his agents got another 45,000 pounds later. In about 1013 the Danish king returned to England and took over as monarch, while Aethelred fled to Normandy⁵. In about 1014, Sweyn either fell off his horse and died from injuries or was murdered. At any rate the English called Aethelred back and the Danish heir, Canute, now 18 years of age, returned to Denmark and prepared an expedition to return to England once again. This second conquest of England was completed when Aethelred's son, Edmund Ironside, died suddenly and Canute was accepted as King of England. This acquisition was chiefly political, as Anglo-Saxon institutions, speech and ways had, in six centuries become deeply rooted. Canute became a Christian and died an Englishman, in 1035. Another son of Aethelred, Edward the Confessor, then assumed the throne to continue the old West Saxon line. A strong Norman party was active at Edward's

court, however, and he may actually have promised William of Normandy that he would be his heir. Edward died in 1066 as the last of the Saxon kings and there followed a hassle for political control with Harold, the strongest son of Godwin, a Wessex earl of the Danish party, competing against his brothers for control.

That year of 1066 was an eventful one. It was the year of Halley's comet and it was also the year in which William, Duke of Normandy, landed at Pevensey with a small, highly trained army on September 28th and marched to Hastings, there to eventually fight Harold on a nearby hill on October 14th. Each army had about 5,000 men but the Normans had cavalry and archers, while the Saxons had only foot soldiers⁶, who were already tired from very recent battles farther north against Harold's brothers, backed by the Norwegian king. Harold was killed in the battle, along with a large number of English land-owning aristocracy and in further battles that followed almost immediately the Saxon land-holding class was virtually wiped out. This land was subsequently parceled out to Norman barons as a new, horse-powered nobility of about 180 families soon controlled Britain under a truly feudal system. Enormous building projects were developed with castles, palaces, monastic establishments, parish churches and private houses. The Domesday Book of 1086 records 5,624 watermills serving some 3,000 settlements south of the Severn and the Trent. (Ref. [45](#))³

3

(Ref. [47](#))

In this century England enjoyed a warmer climate than it had had previously and there were now some 38 vineyards in the country. It was also the first time since the era of the Romans that London gained exceptional status as a city. The fact that England now had a monopoly on tin must have helped the economy. The languages of culture were Latin and French, with English regarded as inferior and all positions of power, both in the church and in the state, went to people of French origin, yet the population was 300:1 English, which is to say - Celt, Roman, German and Viking. By the end of the century, among the majority of the people, Middle English began to supersede Old English. England did not fully recover from this Norman invasion until the 19th century, but it was never invaded

again. Celt, Gaul, Angle, Saxon, Jute, Dane and Norman all mixed blood with the original native stock to produce the modern English people. (Ref. [48](#), [49](#), [50](#), [51](#), [52](#))

It was in 1086 that the famous Domesday Book was compiled on orders from William I to list the assets of landowners for the purpose of taxation. The book listed 25,000 slaves and 110,000 villains (serfs) among the properties. William died after an accident in 1087 while invading a portion of France and he was succeeded for the remainder of the century by his son, William Rufus. (Ref. [53](#)) (Continue on page 588)

SCOTLAND

The mainland of Scotland, apart from Galloway and the far north, was gradually taken over by Scots. The violence surrounding the Scottish kings subsided for awhile at the beginning of this century as Malcolm II ruled for 29 years. He protected his north by marrying a daughter of the Norse Earl of Orkney and then attacked the English in the south. He was defeated and his spearmen ended up with their heads decorating the palisades at Durham. Near the end of his reign, allied with the king of Strathclyde, he burned Northumbria and made his grandson, Duncan, the "King of all Cumbria". But then Malcolm, like so many others, was murdered by his own nobles and Duncan became king (after a few other claimants were killed). Duncan only lasted 6 years before he too was eliminated by the aforementioned Earl of Orkney and Macbeth (made famous by Shakespeare), who then reigned for 17 years. It was a son of Malcolm who finally killed Macbeth, with the help of Northumbrian troops, in the battle of Aberdeen. The victor became Malcolm III, called "Malcolm Canmore the Great Head (1057) and Scotland finally stepped from the Dark Ages.

Life in Scotland in these ages was a cycle of starvation and over-indulgence, temporary peace and wasteful war, drought and flood. Religion was a mixture of pagan myth and Celtic Christianity. People of the lowlands lived in lake houses high on timber piles; in the mountains they had mud huts, dry-stone walls and sod-roofed sheds, huddled about- early monasteries where they retreated when danger threatened. The social system was loosely tribal, a clan system in formation. By the time of Malcolm Canmore, mainland Scotland probably spoke a coalition of Gaelic and Pictish, with the former predominating and gradually replacing also the original

Scandinavian language in the north and on the islands. But the Northumbrian rulers of Lothian, in the eastern lowlands, spoke English and this would soon become the language of most of Scotland and its kings, with Gaelic remaining only among the mountain people.

Malcolm III Canmore's second wife, Margaret, was a descendant of King Alfred and a grand niece of Edward the Confessor and with her to Scotland came Edgar Atheling, heir to the English throne. The marriage, however, did not prevent Edward from burning Northumbria and it didn't keep William the Conqueror from continuing a terrible slaughter in that province in his turn. Malcolm retaliated with a vicious raid of Cumbria, taking thousands of English to serve as Scottish slaves. In spite of these invasions and counter-invasions, Normanization of Scotland was soon under way, initiated by the gentle guidance of Margaret and the Norman-English who eventually filled her court. Upon Malcolm III's death in 1093, probably by treachery, his brother Donald Bane and his sons, Duncan II and Edgar, finished out the century on the throne. Donald Bane was the last Celtic king of Scotland, because Duncan II and Edgar, only one-half Scot by parentage, were truly Anglo-Saxon in thought and character. (Ref. [54](#), [55](#))

IRELAND

Brian Boru (or Boruma) of Munster was an early century leader who promoted the development of roads and forts. In 1014 he defeated the Vikings at Clontarf, although he was killed in the battle. Thereafter some Norse remained in the cities but they no longer dominated the country and soon most withdrew to various Scottish islands, letting Ireland revert to a Celtic culture. Dublin did remain the chief market of the Scandinavians in the west. After Clontarf there followed a short period of revival of art and literature before another era of civil wars started. The next attempt at union was by Diarmat, who became king of Leinster in the 1040s. (Ref. [56](#))

WALES

In 1039 the Welsh prince, Gruffydd of Gwynedd and Powys, defeated an encroaching English force and Wales was left alone for nearly 25 years. In 1063, however,

Harold, then heir to the English throne, with the help of his brother Tostig of Northumbria, conquered Wales again by defeating

Gruffydd ap Llywelyn. (Ref. 57)

SCANDINAVIA

After conversion to Christianity the restless energy of the Vikings quickly evaporated, although as marine merchants they did expand the Frisian-North Sea traffic in fish, wine, beer, salt and metals and carried these products on into the Atlantic. (Ref. 58, 59)⁴

4

(Ref. 60)

NORWAY

After the death of Olaf I Trygvesson in A.D. 1000 there was a period of feudal disruption in Norway until Olaf II took control in 1016. This Olaf II, also called Olaf the Big, like his predecessors, tried to convert his subjects to Christianity by savage and bloody means and he was killed in 1028 while fighting against his own rebellious subjects. At about this same time, young King Canute, as monarch of both England and Denmark, also laid claim to the Norwegian throne and was probably encouraged by those Norwegians who were antagonistic to Olaf. The local, on the spot rulers of Norway in the years immediately after Olaf II's death, however, were so inept that the people began to think much more kindly of their dead king and, recalling that at the moment of his death there was an eclipse of the sun, they began to feel that Olaf's God was angry. With the help of English and German missionaries they then became Christians and in the next century even canonized Olaf. In 1035, under Magnus the Good, the Norwegians finally eliminated all Danish claims to their throne, achieving complete independence.⁵

5

They had found the advantages that Christianity could confer on kings and thus they evangelized ferociously. In spite of that, pagan customs survived in eastern Norway (and parts of Sweden) until late in the century. (Ref. 61)

Harald II Hardrada (Harold Hardruler) came to the throne in 1046

after having spent many years in the Mediterranean serving the East Roman emperor as commander of a mixed Latin and Norwegian force fighting Moslems along the north African coast. He decided to conquer England but was defeated by the English King Harold in 1066 at the battle of Stamford Bridge in September, just before the Norman invaders landed on the English coast. After Hardrada there was another period of confusion with wars of succession and struggles of the aristocracy against the growing powers of the clergy. In spite of these troubles, increasing trade brought prosperity. (Ref. [62](#), [63](#), [64](#), [65](#))

SWEDEN

In this and the next century Sweden's Christianity relapsed and the Uppsala stronghold of the old Norse gods was again resplendent. Internecine wars were common, particularly between the Goths and the Sveas and some of these were probably precipitated by religious differences.[6](#)

6

All were only petty kings or queens, but violent conflicts over territory probably occurred. Tentative figures, based on graves, etc., in Malardalen indicate 4,000 farms and 40,000 people in that area, which was still not over-populated. There was a gradual rising of new land from the ocean, as the sea-level had dropped 5 meters since the 9th century. Production of iron in Sweden reached a peak, perhaps 4,000 kilograms annually. In some areas there were as many as 8 or 9 furnaces and 100 charcoal pits in each square kilometer. The iron was needed for tools, weapons, household equipment and even ships (as rivets, etc.). (Ref. [66](#))

DENMARK

Upon the death of King Sweyn his son Harald was proclaimed king of Denmark, while another son, Canute, at 18 years of age was supposedly king of England. Even though he had to fight England's Edmund, when the latter died Canute was accepted as king of all England, in reality. Shortly thereafter Harald died in Denmark and Canute suddenly became king there, also, so that he was monarch over a large empire. When he died in 1035, however, this empire deteriorated rapidly. One of Canute's sons, Hardicanute, became king of Denmark but he was not very competent and did not live

long anyway. It appears that he was poisoned by a Danish chieftain living on a fine estate on the Thames, in England. At any rate, the Danes then allowed Magnus the Good, the new young king of Norway, to become the Danish monarch also. He made a great name for himself as he personally led a Dano-Norwegian force against some tremendous hordes of Wends who suddenly poured northwards into Jutland. But then Sweyn Estridson (or Sweyn Ulf son), a nephew of Canute the Great and who had been made the earl of Jutland by Magnus, turned against him and these two young men fought year after year for the crown of Denmark. After Magnus was drowned, Sweyn continued to battle the new king of Norway, Harald Hardrada, who also had an eye on Denmark. In the end Sweyn was the victor and then he sent several fleets across the North Sea to England to help the Danish colonists who alleged that they were being suppressed by William the Conqueror. In each instance, however, the commanders of the Danish fleets allowed themselves to be bought off with the old method – payment of Danegeld. The Viking Age came to an end in Denmark during the time of Sweyn Estridson, but the Vikings had brought Christianity back with them from western Europe. (Ref. [67](#))

Christianity did not have quite the same meaning in Denmark that it did in other parts of Europe. It was felt to be quite natural for noblemen and kings to have any number of mistresses. Sweyn had three or four wives in succession but none of the five sons, who succeeded him in turn, was by any of these lawful wives. But the religion did make some headway and in 1060 three bishoprics were set up in Denmark by the pope. (Ref. [68](#), [69](#)) One of Sweyn's successor sons was Canute the Holy, a strong-willed man who defended the legal system, clarified taxation, introduced a tax for the benefit of the church (10% of all harvested grain), worked to liberate all slaves and sent to England for relics of St. Alban. His greatest resolve, however, was to reconquer England and for this purpose he assembled a great fleet in the Limfjord, consisting of 60 Norwegian, 600 Flemish and 1200 Danish vessels. But once again William the Conqueror foiled the expedition by sending emissaries with large amounts of money for bribes, and the fleet was disbanded before it could sail. The peasants turned against Canute as he tried to tax them further and they finally murdered him inside his church, allowing his brother Olaf to become king. Crops failed throughout his nine year reign and he was given the name "Olaf

Hunger". The crops began to grow again only upon the ascension of his brother Eric in 1095. (Ref. [70](#))

Recent excavations in Denmark have revealed three distinct types of vessels:

1. A classic Viking Man-of-war, 90 feet long, carrying 40 to 50 oarsmen and capable of long distance travel. This was undoubtedly the type of vessel used to attack Britain.
2. A smaller war-ship with only 24 oarsmen.
3. Domestic deep-sea traders and light fishing boats.

All of these findings would confirm the two types of Viking themes; peaceful and far flung trade and raiding. (Ref. [71](#))

FINLAND

The still pagan Finns worshiped Ukko, the air god; Tapio, the forest god; and Ahti, the water god.

OVERSEAS SCANDINAVIAN CENTERS

After Iceland had become Christian in 1000 by vote of the Allthing, it was given its own bishopric at Skalholt in 1054. (Ref. [72](#)) Also see NORTH AMERICA, this chapter.[7](#)

[7](#)

In the Iceland census of 1096 the total was probably about 80,000 but the fully free population was only about 4,500. After that, erosion and volcanic eruptions reduced available resources and the population declined. Those who weren't fully free included tenants, laborers, servants and landless poor. (Ref. [73](#))

EASTERN EUROPE

SOUTHERN BALTIC AREA

In this and the next century Danes and Swedes tried to Christianize Estonia, without success. Pomerania, on the Baltic Coast, although under Poland from about 980 to 1031, thereafter became dependent to Denmark. South of this Boleslav I created the Polish state and then expanded farther south to take Prague in 1033 and make himself Duke of Bohemia shortly thereafter. Bretislav I followed in

1034 and Boleslav II was a great ruler from 1058 to 1079, conquering upper Slovakia and even putting a relative on the Russian throne at Kiev. His own nobles eventually drove him from the Polish throne after he had Bishop Stanilas murdered and had been excommunicated by the pope. Nevertheless, at its peak Poland extended from the Baltic to the Danube and from the Elbe to the Bug, with Russia as a vassal state. (Ref. [74](#), [75](#), [76](#))

RUSSIA

By 1028 there was a revitalization of an Alani people living first south of the Patzinaks and then later south of the conquering Cumans in the Caucasus. (Ref. [77](#)) The Cumans, as noted previously, were part of the Ghuzz7 Turks and they were variously also called Kipchaks and Poloritse and later, when incorporated into the Mongol state of the 13th century, they were known as Tatars or Tartars. The Patzinaks (Pechnegi, Petchenegs) were a tough, nomadic people of the southern Ukraine, who if thirsty simply dismounted, opened their horses' veins with a knife and drank the blood. They often ate the fattest of the horses, slightly warming the meat over a fire. Later in the century they were virtually annihilated by the Emperor Alexius I. (Ref. [78](#))

In spite of the fact that the extreme south of Russia was held by the semi-barbarous tribes just mentioned, plus some Bulgars and Khazars, the Kievan state reached its zenith at this time with the absorption of the previous Scandinavian invaders and domination of both Slavic blood and speech. Even so, the Kievan Prince Yaroslav married the daughter of the king of Sweden and gave hospitality to the exiled king of Norway. The social organization was aristocratic, the Russian church powerful. After 1054 Russia had to choose in the religious quarrel between Rome and Constantinople and went with the Greek Orthodox Church. In that same year, however, the last powerful ruler of Kiev died and power fell to the Cuman Turks and the Orthodox world became divided in two. Almost all of the Russian princes had been defeated by these migrating Turks, speaking an east Turkic language, who had crossed into the Russian steppe at about 1060. Even though Kiev, itself, was controlled by Poland's Boleslav II after 1067, the Cumans sacked that city in 1093. (Ref. [80](#), [81](#))

Farther north, the principalities of Novgorod, Polotsk, Smolensk and Susdal survived and just to the east of the latter, there still

remained the Volga Bulgars. There was still not a united country which might be called "Russia". Much of the area was productive, however, and tallow, honey and wax were exported. (Ref. 82)

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1. These ideas came from Galen (see pages 328,413 and 435), who claimed that his father had lived to be 100 years old because he never ate fruit (Ref. 16)
2. This transfer of allegiance was within his rights as a free lord in a feudal society (Ref. 33)
3. A term used by McEvedy (Ref. 38, page 60) referring to the Norman-Frank mixture
4. Anna brought with her from Kiev the missal on which all subsequent kings of France swore their coronation oaths but none of the Catholic priests could read the Slavonic inscriptions there-on. It was not translated until Peter the Great of Russia visited there in 1717
5. There is some confusion about these dates in the literature, in that Barry Cunliffe (Ref. 44) says that after a massive Danish landing in 1009, the force moved on to take London, burn Oxford and rampage through East Anglia. Then Sweyn Forkbeard returned to Northumbria, where he was proclaimed king
6. A different view is given by Thomas (Ref. 46) who says that Harold's men did

have horses and used stirrups, but they did not recognize the value of the latter and dismounted to fight, while William's horsemen charged on their mounts

7. "Ghuzz" is a shortened name for the more proper "Toguz-oghuz". (Ref. 79)

Europe: A.D. 1101 to 1200

EUROPE

After an adequate horse collar was developed at some place and some time in this 12th century, plowing was done with horses, from the Ukraine to Normandy although the Mediterraneans still used oxen and lighter plows. Flax was grown all over Europe throughout the Middle Ages and was used not only for linen clothing but also for linseed oil, sails and cordage. (Ref. 1) The craze for spices was in full swing and the west gave up its precious metals in the difficult Middle East trade, which went on through to the Far East.

NOTE: Insert Map 41. Crusader States c.1140

Fireplaces were now set in walls whereas previously the round hearth in the center of the room had been used for cooking while braziers were used for warmth. The new system was acceptable for cooking but deplorable for heating for many centuries, awaiting technical improvements. Until the beginning of this century European clothing had remained almost identical with that of Roman times; long tunics falling straight to the floor for women and to the knees for men. Now the men's clothes were lengthened but even this change was minimal. The number of water wheels increased and their use was extended from simply grinding grain to iron works and other purposes. The transformation of windmills from the horizontal to the vertical position greatly increased their power and usefulness.

We mentioned in the last chapter that there was an urban renaissance in Europe. It became apparent in this 12th century that at least in many areas, particularly Italy, Flanders and Germany,

that the cities were actually superior to the state, leading completely separate lives. (Ref. 2)

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

Crete remained basically under Byzantine control, although at the end of the century Genoese colonists had located at several points. During the 3rd Crusade Richard the Lion Hearted conquered Cyprus from Byzantium but the Eastern Empire retained control over Rhodes, the Cyclades and most of the other Aegean islands except for a period in the middle of the century when the Normans, under Roger II, temporarily took some areas. (Ref. 3)

GREECE

The Norman, Roger of Sicily, profited by the 2nd Crusade in being able to seize many of the Greek Islands and attacked Athens, Thebes and Corinth. He went down into the Peloponnesus in 1147 and up the Aegean coast in 1185. Constantinople remained a city of splendor, but there were many wars and the Balkans broke free, so that there was eventually little left of the Byzantine Empire except Greece, itself.

UPPER BALKANS

Hungary absorbed Dalmatia and after 1106 Croatia existed also under the Hungarian King Kalman. Secondary to the turmoil of the 1st Crusade the Byzantines did destroy the Patzinaks, who had finally been crowded into a small area just southwest of Hungary, but the territory was immediately taken over by the Cuman Turks. (Ref. 4) In 1124 Hungary's Stephen II was defeated by the temporarily resurgent Byzantine Emperor John II Comnenus, who prevented the Hungarians from keeping control of Dalmatia, Croatia and Serbia at that time. (Ref. 5) The Orthodox Church considered Islam as simply a Christian heresy and felt that there was little to choose between this and the Latin schismatic and often felt that the "Franks" were even more detestable enemies than the Moslems, for they insisted upon substituting their own creed and rites for Orthodoxy, whereas Moslem rulers allowed the Orthodox Church to manage its own affairs, subject only to payment of taxes and recognition of Moslem political supremacy. This fact did much to

assure Turkish success in the Upper Balkans and helped to stabilize later Mongol power over the Russian principalities. (Ref. 6) This feeling was often reciprocated by the Western Church. Petrarch, for example, wrote: "The Turks are enemies, but the Greeks are schismatics and worse than enemies"¹.

Near the end of the century Bulgaria again broke free from Byzantine rule and then Serbia was able to separate from Bulgaria to found the poverty ridden Serb Kingdom (1180).

ITALY

The north half of Italy remained subject to the German Empire, but the Papal States had some semblance of self-government and Lombardy and Florence retained some local control. Venice continued to be independent while southern Italy and Sicily prospered under the excellent administration of the Normans. The people of the Two Sicilies had a free choice of religion under Roger I Guiscard and then Roger II after 1101. The latter even started a silk industry at Palermo, bringing silk workers from Greece, after his expeditions there. Frederick Barbarossa entered Rome on his 4th expedition into Italy, in 1167, and enthroned an anti-pope Paschal III, but a pestilence broke out among his troops and he soon withdrew. The end of the predominance of knighthood was foreshadowed when an army of German knights met defeat to charging pikemen of the Lombard League of cities of northern Italy at Legnano in 1176. The League's subsequent military might was completely defensive with town walls and the massed pikemen infantry. (Ref. 8) At the end of the century the German Emperor Henry VI, with the help of Genoa and Pisa, which was then at the height of its power, wrested southern Italy away from Norman control. Genoa may have minted its own gold coins late in this century and other Italian cities soon followed. (Ref. 9, 10)¹

¹

(Ref. 11)

In the Italian Alps through Lombardy and Piedmont (as well as in Carinthia and Styria of Austria) the Carthusian monks were dominant in the development of pre-modern iron smelting through the use of strong drafts produced by the enormous water power of

alpine streams. Then came a method of refining cast iron, by charcoal fire and the addition of scrap iron to produce steel (Ref. 12). In spite of political changes, the medical school at Salerno continued to function on a high level. Even epilepsy and psychoses were given somatic causes and treatment, although their organic bases were still denied by the followers of Galen. Salerno was a cross-roads of European, Arabic and Jewish medicine. Gerard, an Italian scholar of Cremona, went to Toledo, Spain to learn Arabic and by the time of his death in 1187 he had translated 71 Arabic works, most of them medical, including Avicenna's Canon and the works of Rhazes.

CENTRAL EUROPE

In general Europe experienced another warm period during this century, as in the last one. (Ref. 13)

GERMANY

North German cities soon dominated the Baltic trade and new cities were formed farther and farther eastward by the pseudo-crusades of the Knights of the Sword and the Teutonic Knights. (Ref. 137). Cultural advances speeded up civilization in the German realms. The first paper mill in Europe opened at Ravensburg. These areas also saw the mining of copper, silver, gold and iron. There were continued emperor - pope struggles with a temporary peace following the Concordant of Worms of 1122 when it was agreed that there would be a divided ceremony of investiture - one spiritual and one lay, thus assuring the concurrence of both pope and emperor in the choice of bishops.

The Salic-Frankish Dynasty ended with the death of Henry V in 1125 and there followed dynastic battles between two great families for control of the empire. These were the Welfs or Geulfs (primarily in Saxony) and the Waiblingens or Ghibellines (from Swabia and southern Germany). (Ref. 14) The latter was the family name of the Hohenstaufen Dynasty² which will appear frequently in later German history. Under Frederick I (called Lord of Peace or Barbarossa, for his red beard) as Holy Roman Emperor, Germany rose to the leadership of Europe. Frederick at first forbade wars, but then reestablished imperial supremacy of Poland, Bohemia, Hungary and Burgundy, only to meet failure in Italy as the old

Lombard cities united with the pope, against him. He led a strong contingent to join Richard of England in the last part of the 3rd Crusade and died on the trip on the peninsula of Asia Minor.

In spite of the empire, most of the old Stem Duchies of Germany continued their own separate ways, pretty much independent of the empire. In Brandenburg the aggressive leaders of the Ascanian Dynasty, such as Albert the Bear, increased the size and power of their state. Settlers were imported and towns were founded. In Bavaria, from the 9th to the 12th century, all the dukes were at the center of the rebellions of the great German princes against the imperial authority. Early in the period Emperor Conrad II had deposed Guelph Henry the Proud and gave Bavaria to the Babenbergs of Austria, but Frederick I restored its autonomy. He soon put Otto of Wittelsbach in charge, however, and that family then ruled Bavaria until the 20th century.

Frederick's son, the future Henry VI, had married the daughter of Roger II of Sicily and after he was crowned emperor in 1190, he proceeded to take over Sicily after a struggle with the Norman anti-king, Tancred of Lecce. The Waiblingen or Hohenstaufen supremacy then extended over all Italy except for the Papal states. Capturing King Richard on his return from the Crusade, Henry used the captivity to make the crown of England a fief of the empire and to extort an enormous ransom.

AUSTRIA

Although Vienna had been partially fortified since Roman times the ramparts were further improved by 1137 and ten years later work was started on the St. Stephens cathedral. In 1156 Austria was given the special status of an hereditary duchy within the Holy Roman Empire, by Frederick I, Barbarossa. This was an era of great prosperity under the leadership of the Babenberg family.

HUNGARY

After Coloman I conquered Damatia from the Venetians in 1102, Hungary had nearly a century of peace, if we do not count a few dynastic fights and lesser border skirmishes. By the end of the century Hungary had doubled her area and increased the population to 2,000,000 people. There was farming and some good sized towns and gold, silver and salt mines. Promotions to the rank of freemen or nobles became less and less and did not keep pace

with the growth of the unfree population and so government dwindled to an oligarchy. Further transition to private ownership of land resulted in changes with diminution of clan and crown lands. In 1150 Germans from the Moselle region (Saxons) were called in to help defend Transylvania against Poland and the Greeks and they settled in the Zips and southern Transylvania. At the end of the century Bela III married the daughter of the King of France and Hungary became the most powerful kingdom in southwestern Europe. Educated at Constantinople, Bela introduced Byzantine customs to the Hungarian court. (Ref. [16](#), [17](#))

CZECHOSLOVAKIA

Following the death of Bretislav II the dukedom of Bohemia was obtained for Ladislav I with the help of the German emperor. There were multiple local "kings" all over this area but all were more or less subservient to the German emperor, except in the northern portion which was controlled by the Polish kings. Duke Ottokar I was restored to power in 1197 and strengthened Bohemia, so that it became a real factor in German affairs. (Ref. [18](#))

SWITZERLAND

This country did not exist independently at this time.

WESTERN EUROPE

"Western Europe had begun its slow climb out of political dislocation and feudal anarchy during the 12th century"³. Although weakened, kings had survived and now, under feudalism they exerted their rights as "liege lords". There was a prolonged population rise beginning about 1100 and lasting for 2 1/2 centuries. (Ref. [19](#))

SPAIN

The militancy of the Catholic Church in this period of the Crusades was especially noticeable in the Christian part of Spain. Alfonso I of Aragon even named the Templars and Hospitallers heirs to his kingdom. It is ironical then, that this particular period ushered in 200 years of anarchy and civil war between rival Christian kingdoms of the northern sectors. Aragon and Navarre separated in 1134 and the former advanced progressively while the latter shrunk

and lost still more territory to Castile at the end of the century. Leon seceded from Castile in 1139; Aragon and Barcelona united in 1140.

NOTE: Insert SPAIN IN 1180

Moslem Spain in the south was taken over by the Berber Almohades (Muwahids) as the older Almoravid Dynasty (Murabit) collapsed in 1145. Muslim Spain made silk, particularly in the great industrial city of Almeria, which at one time had five thousand looms. The Alpujarras Mountains were covered with mulberry trees, essential for the silk worm. The mining of mercury and silver continued to be important Spanish industries and there was a paper factory in Moorish Spain at least by the middle of the century, with the Arabs using rags, wood and straw as the source materials. (Ref. [20](#), [21](#))

The greatest man in Spain in this century was a Moslem heretic - the great physician and philosopher, Averroes. He was the first to explain the function of the retina and did some work on immunity. Philosophically, he pleaded for a better understanding between religion and philosophy, stating that symbolically interpreted, the doctrines of religion could be harmonized with the findings of science and philosophy. His importance for the history of ideas lay in his stimulating effect upon Latin Christian theologians. From the late Roman period Aristotle had been curiously disguised by a Neo-Platonic garb but Averroes work abstracted Aristotle from this alien dress and permitted the theologians of Paris to start their revolutions of Christian philosophy from a more or less authentic Aristotelian basis. Another great Arabist physician of this century was Avenzoar (Abu-Marwan ibn-Zohr), born in Seville, the son of a Jewish physician. He condemned astrology and mysticism in medicine and disagreed with some of Galen's teachings. His reports on tracheotomy suggest that he may have done some surgery. The most famous Jewish physician of all in Arabic medicine, however, was Maimonides (Moses ben Maimon), born in Cordoba and a student of Averroes. When the Almohade Dynasty began to harass non-believers, he fled to Morocco and finally to Cairo where he became physician to Sultan Saladin. Translations of his writings into Hebrew and Latin were widely read throughout Christian Europe. Other Jewish physicians who fled Spain at the same time

ended up in Salerno and Montpellier where they brought Arabic science and medicine to Christian Europe. (Ref. [22](#), [23](#), [24](#))

Merino sheep had been introduced into Spain from Africa but they were highly sensitive to temperature and while they could graze in the northern highlands in Castile in the summer, they had to be driven far south to Andalusia for winter feeding. When conflicts between the northern Spaniards and the southern Moors became serious, these movements became difficult and ended as one of the provocations firing Spanish determination to drive the "infidels" from the peninsula. (Ref. [25](#)) Slavery thrived on the Iberian peninsula and in the entire Mediterranean world, as Moors, African, Hungarians, Serbians and others were enslaved from one end of the Mediterranean to the other. Christians even enslaved fellow Christians. (Ref. [26](#))

PORTUGAL

After winning wars against the Moors and Spain, with the help of papal intrigue, the Portuguese became independent from Castile in 1139 and by 1143 had established their separate kingdom under Afonso I of the Burgundian Dynasty. This did not stop the continuing wars with both the Moors and the Castilians, however. (Ref. [27](#))

FRANCE

With accelerated cathedral building in the 11th and 12th centuries, western Romanesque architecture developed into Gothic. Steep roofs elongated into spires, the cross-grained vaulted roof was introduced, the pointed arch⁴ displaced the rounded one and there was development and elaboration of windows and stained glass. Craft guilds began to appear all over Europe so that a new class of people now had to be tallied in addition to the nobles, clergy and peasants. France led the way with the development of the fourth class, the bourgeois, or burgesses, who were bakers, merchants, master-craftsmen and the like. But still the whole of the land was owned by a small number of families and landed property was really the sole source of power. The Crusades and later the English wars decimated the nobles of France and divided their possessions. Actually under a series of weak kings, including Louis VI the Fat and Louis VII the Pious, France remained throughout this century a minor and harassed state. England held an area on the continent

that was greater than that held by the French king by virtue of the fact that the English throne had passed to the Count of Anjou (the English Henry II), who had married the heiress of Aquitaine. Burgundy was chiefly German, Provence was independent and so was Flanders, the area now a part of the Netherlands. Only at the end of the century, in about 1180, did France get a king, Philip II, who was strong enough to begin lifting France to a significant place in Europe and become strong enough to battle Richard I, of England. The marriage of Eleanor of Aquitaine to England's Henry II not only eventually led to the Hundred Years War, but gave overnight prosperity to the Bordeaux wine merchants who became purveyors to the English court. Eventually a 300 ship fleet was built to carry Bordeaux wine to England. (Ref. [28](#), [29](#), [30](#))

NOTE: Insert FRANCE IN 1180

Of 15 universities established in France in the Middle Ages, only two allowed the study of medicine - Montpellier and later the University of Paris. After 1180, Jews and Arabs could be admitted to Montpellier. (Ref. [32](#))

THE NETHERLANDS AND BELGIUM

We have previously noted that in this century commercial development in Italy took a quantum jump. A secondary commercial center appeared in the Low Countries where the navigable Rhine, Meuse and Scheldt rivers converge. Overland portage routes linked these channels to Italy and exchanges between the two centers occurred regularly at great fairs in Champagne. (Ref. [33](#)) The independent area of Flanders had the great, busy port of Bruges, which was the center of the Hanseatic League, an alliance of merchants from ports all across the North and Baltic seas. It was designed to promote member cooperation against external competition and pirates, to arrange for congenial association of merchants away from home and to protect against fluctuating currencies, defaulting debtors and feudal tools. The League had a detailed Code of Maritime regulations and initially, at least, was an agent of civilization. Merchants of Flanders brought English wool to Flemish weavers and then sold the cloth throughout the north, soon dominating all this north trade. It is unfortunate

that eventually the league became an oppressor as well as a defender of rights. (Ref. [34](#), [35](#))

BRITISH ISLES

ENGLAND

The Thames at London was already bordered by a continuous line of docks for the business of exporting wool, cloth and tin and importing such things as Arabian spices, Chinese silks, Russian furs, and French wines. Iron was mined and this necessitated a revival of coal mining to process the metal. While prior to the Norman conquest all English wool had been taken to Flanders for weaving, now Flemish artisans went to England and taught the English how to use wool, so that it eventually became a foundation of British wealth. Up until the middle of the 12th century Anglo-Saxon (Old English) was the language of England; then Middle English developed. (Ref. [36](#))

The early kings of this century - Henry I (the last Norman), Stephen and the six month queen, Matilda, were of little consequence to history. Near the middle of the era a six year civil war broke out and as a result Henry II of the Plantagenet line became king (1154). The name Plantagenet comes from "Planta Genesta", the broom, which was the emblem of the house of Henry Fitz-Empress of Angevin. Henry II, as noted above in the discussion of France in this century, married the heiress of Aquitaine and thus acquired the Norman Angevin and Aquitanian fiefs on the continent. He became one of England's greatest kings, known for establishing the jurisdiction of the secular courts over the clerical and thus liberating English law from feudal and ecclesiastical limitations. He quarreled with his former friend, Thomas Becket, the archbishop of Canterbury, as the latter began to champion church against crown. Killed by the king's knights, Becket became a martyr and the king lost the people's confidence. Nevertheless, his reign marked the beginning of the English Common Law and the beginnings of trial by jury. Jurymen were witnesses as well as judges of the fact, picked because they were the most likely to know the facts. (Ref. [37](#), [38](#))

Near the end of the century, Richard I, son of Henry II and more French than English, became king, fought with Philip of France, lived the life of an adventurer and participated in the 3rd Crusade. Returning from this jaunt to the Near East he was taken prisoner by

the Holy Roman Emperor and was finally ransomed at a high price. When Richard, called the Lion-Hearted, died in 1199 he was succeeded by his brother John.

SCOTLAND

There was continued racial and political turmoil in Scotland. After Edgar and Alexander I, David I, another son of Malcolm and Margaret, reigned from 1124 to 1153 and continued the gradual Normanization as an Anglo-Norman aristocracy arose including the Baliols (de Bailleul), Bruces (de Brus), Lindsays and Fitz Alans. These Normans – built timber palisaded towers with fortresses throughout the southern regions and the local people were greatly impressed by the apparent strength of the new rulers. Put to a test by a Celtic revolt from the men of Moray, the Norman horsemen were easy victors and subsequently raided and burned the Moray glens. Battles with English troops also occurred with the loyalties of the new Norman-Scottish aristocracy divided so that the outcomes were only confusing. David founded the city of Edinburgh, giving his friends strips of land on either side of the castle rock. Upon his death there was incessant fighting for years over the succession and stability was not regained until 1165 when David's second son, William I, called "The Lion"⁵ became king. In 1174 William was captured by the English and for his release, he accepted feudal allegiance to the English crown. (Ref. [39](#))

IRELAND

Irish-English conflict began in this century when an Irish chieftain, Tiernan O' Rourke, lost his kingdom and wife to a rival and sought aid from Henry II of England. The king sent some Normans from Wales, including Richard Fitz Gilbert de Clare, Fitzgerald, Fitz Henry and Carew, among others, and then even went himself in 1171, calling himself "Lord of Ireland". Norman castles arose at Maynooth, Trim, Carrickfergus and Dublin, but in the end the Irish absorbed the Normans into Irish culture. As a result, however, the

Irish never again quite trusted the English. Belfast was founded in northern Ireland in 1177 as a castle to command a ford across the Lagan River. (Ref. [40,41](#))²

It starts with an account of Viking attacks of the 9th and 10th centuries and then goes into an heroic saga about 2 Munster kings, Mathgamain and his brother Brian Boru (further described on page 557), from whom the O'Brien kings traced their descent. (Ref. 42)

WALES

The prince of north Wales, Gruffydd ap Cynan, and his sons worked in the first half of the century to rebuild native Welsh power behind the Snowdonian range. Elsewhere Wales had become the home of many of the Norman nobility and they were the Welch-Norman buccaneers sent by the English king to Ireland when an internal dispute there offered an excuse for intervention. Tintern Abbey was founded in the Wye Valley by Cistercian monks in 1131. (Ref. 43)

SCANDINAVIA

Civilization progressed rapidly among these sturdy people. Work was held in honor and great craftsmen developed, particularly in woodworking and shipbuilding. There was wide distribution of the land among a free peasantry. Polygamy was practiced among the wealthy in spite of acknowledgment of Christianity. The great Scandinavian epic poems called the "Edda", with sources from Norway, Iceland and Greenland, appeared at some time between the 8th and this 12 century.3

3

(Ref. 44)

NORWAY

King Sigurd Magnusson, like King Harald before him, took up the fight against Moslem expansion by taking 60 Viking ships to fight in Portugal and Spain and then on to Morocco and the Balearic Islands. He was well received by his Norwegian predecessors (Normans) on Sicily, where Roger II Guiscard was duke. King Sigurd, with the consent of the pope, raised Roger to the rank of king and then proceeded on in 1110 to conquer the fortress Sidon, in Lebanon. The first cardinal to visit Norway was Nicholas, who later became Pope Adrian IV and his visit probably helped to make the Catholic Church the greatest power in Norway at the time. Most

of the rest of the century was a period of confusion, marked by wars of succession and by a struggle against the growing power of the clergy. Nevertheless, there was expansion of trade and increasing prosperity. Sverre became king in 1184 and maintained a strong monarchy against both aristocratic and clerical opposition, thanks to support from small landowners. (Ref. [45](#), [46](#))⁴

4

In western Norway two classes of freemen were recognized: the "hauldar", owning inherited land and other men of free descent, farming land not theirs by inheritance. The law of Trondelag recognized these two classes but also a third, lower class of landless freemen. "Mansbot" was an atonement price, the legal value of a man's life and varying according to his class. After a killing, a feud could be averted by paying the "mansbot" to the family, which could be extended to 4th or 5th cousins' Much that has been written about this may be pure fantasy, constructed by later medieval lawyers. Norway had a single king in this century, but his influence did not extend far inland. (Ref. [47](#))

SWEDEN

King Sverker amalgamated the Sveas and the Goths and was then succeeded by Eric IX Jedvardsson in 1150. Erik restored Christianity and then conquered the heathen Finns, establishing seven-century domination over those people. (Ref. [48](#), [49](#))

DENMARK

Cavalry was first used in Denmark in 1134 and this accentuated a feudal tendency as a new class of professional, military nobles appeared. In this period many Danes returned from England where William had started to persecute them and subsequently much Danish building had an English influence. Valdemar (or Waldemar) I, the Great, became

Danish king in 1157 and gave the country a strong government, as trade increased. Copenhagen was founded as a market outlet by the chief minister, Bishop Absalon. Together the king and this minister wiped out the savage Wends, pirates from the Island of Rugen. Valdemar married two of his daughters to two of Frederick Barbarossa's sons. Absalon although not very scholarly himself, got his clerk, Saxe, to write Denmark's chronicles in Latin. Sweden

never had such a chronicle and thus Swedish history is not well documented. (Ref. [50](#), [51](#))

FINLAND

It was raiding by the Finns on the Swedish coast which finally provoked the Swedish King Eric IX to retaliate by conquering Finland. He then withdrew most of his troops and left a Bishop Henry to convert the Finns. They promptly killed the missionary, although much later they made redemption by making him a saint. In the meantime, however, they reverted to paganism for another 50 years.

OVERSEAS SCANDINAVIAN CENTERS

Iceland's Mount Hekla volcano erupted in 1104 and again in 1154, devastating farmland for 45 miles around its base. The Scandinavian colonies on Greenland continued throughout this century. (Ref. [52](#))⁵

5

Power in Iceland was divided among many chieftains. The early church was not a royal institution, but early bishops were, in fact, chieftains. All chiefs fought for more land and power, but in the meeting of the Allthing once a year the unity of the country was symbolically expressed. This was the century when Icelanders began to compose sagas, first about Norwegian kings and Icelandic bishops, later about the families who were believed to have played prominent parts in the history of the country. Some 300 farms had been established in Greenland by this century. (Ref. [53](#))

EASTERN EUROPE

SOUTHERN BALTIC AREA

When the Cuman invasion ended Russian trade with Constantinople, the exports of tallow, honey, wax and furs were sent via the Baltic to the West and the Baltic ports, already rich with fisheries, became even more important. In these states just south of the Baltic, Christianity came in by means of the German sword, through the Teutonic Knights, although the conversion was not actually official until after 1190. In the meantime, Poland

subdued the Pomeranians (1102-1124) and King Boleslav III gained access to the Baltic Sea. He divided his realm into five principalities for his sons, with Cracow as the capital. The great landlords and knights had become well-defined social classes and along with the clergy became ever more powerful. After an eight year reign by Vladislav II (Ladislav), Boleslav IV took over in 1146. He was not a strong ruler and he lost territory to Albert the Bear and Henry the Lion. As far as the Germans were concerned, Poland was only a dukedom and Frederick Barbarossa again invaded Poland in 1157, forcing the submission of "Duke" Boleslav. There followed Mieszko III, who was so despotic that his own nobles drove him out in 1177 and then Casimir II, the Just. (Ref. 54, 55, 56)

RUSSIA

This was the century of the decline and fall of the Kievan realm and according to the historical schema of Toynbee (Ref. 57) it represented the "Time of Troubles" in the Eastern Orthodox Christian Society, Russian Division. Between 1054 and 1224 there were 83 civil wars, 46 invasions of Russia, 16 wars waged by Russian states on others, and 293 princes disputing 64 thrones. (Ref. 49). Kiev, itself, succumbed internally to class warfare and a declining wealth, precipitated by the diversion of trade routes through Mediterranean channels and finally to external force as the Mongols invaded in the next century. The Cumans remained powerful in the south and continually raided until the local people fled north to the forest, emptying the steppe, but increasing the population of the central and northern principalities, including Moscow, which was founded in A.D. 1147, and Novgorod, which built up a far-flung empire far into the arctic. (Ref. 58). Vladimir Monomakh, Prince of Kiev, carried on numerous campaigns against the Cumans and his reign marked the last period of brilliance at Kiev. The Volga Bulgars still held the middle Volga region and prevented Russian expansion eastward. South of the Cumans in the Caucasus there was a large group of Alans and the Kingdom of Georgia. (Ref. 59)

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1. From A History of the Byzantine Empire, by A.D. Vasiliev, as quoted by McNeill (Ref. 7, page 514n)
2. Trager (Ref. 15) gives the explanation that "Ghibelline" is an Italian corruption of "Waiblingen" which was the name of the estates on which the Swabian castle "Staufen" was located. This later became Hohenstaufen. "Guelph" is a corruption of the Bavarian family name "Welf"
3. Quotation from Reference 8 page 124
4. The pointed arch had been used in Arabic art for 200 years. (Ref. 31)
5. So-called because of the roaring beast displayed on his standard

Europe: A.D. 1201 to 1300

EUROPE

Although Europe was in great part burning with the Crusade zeal, still the trade and economy was such that one might say that western capitalism was established in this century. The scale of crossbow manufacture, particularly in Barcelona and Genoa, had reached the stage where the supply allowed not only use in the crows nests of fighting ships but also in land battles as well. This further signalled the downfall of horse warfare as suggested by the success of the Catalan Company whose exploits will be told under TURKEY and SOUTHERN EUROPE, in the next chapter. (Ref. 1)¹

¹
(Ref. 2)

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

In 1204 at the close of the 4th Crusade, the Latin Empire of Constantinople controlled the Cyclades under the title of Duchy of the Archipelago, with ruling Italian and Venetian nobles. At the same time, Rhodes was freed from Byzantine control and some areas came under rule of local lords, while others were under Genoa or Nicaea.

By 1282, however, the Seljuq Turks took over the entire island of Rhodes while Venice continued to dominate Crete after the 4th Crusade. When the Hospitallers arrived on Cyprus in 1291, they established sugar cane, which they had brought from Syria. (Ref. 3, 4)

After Constantinople was sacked by the 4th Crusaders, the Byzantine areas, including Greece, were divided into feudal dominions, each ruled by a Latin noble. Most of these on the mainland were French and French became the official language there for a period of 57 years, particularly in the feudal state ruled by the Villehardouin princes. A unique mixture of French and Hellenistic culture flourished in Morea in the Peloponnese. In 1261 the Byzantine Empire was restored under the Palaeologus Dynasty, but the territory was much reduced and there was little attached glory. Greek art and literature did experience some revival and there were at least two peripheral Greek dynasties - the Greek Empire in Exile at Nicaea in Asia Minor and the Despotate of Epirus on the west shore of the Greek peninsula. The latter had fallen to the Bulgars in a war in 1230 but the Greek-Nicaean empire armies triumphantly re-entered the area in July of 1261.

UPPER BALKANS

The Second Bulgarian Empire emerged after the Crusader sacking of Constantinople, with the Asen Dynasty oscillating in allegiance between the West and the East. Under her greatest king, John Asen II, Bulgaria ruled also Thrace, Macedonia, and for awhile after 1230, also Greek Epirus and Albania. This king was much beloved, even by the Greek population. Finally he broke with Rome and the Bulgarian Church became independent. While Bulgarian territory was at its maximum a Mongol invasion greatly disordered and weakened the state and the leadership of the Balkans moved farther west to the Serbs. Ever since that time, even up until the 20th century, Bulgaria has been striving to regain that once extensive empire which included parts of Yugoslavia, Turkey (old Thrace), Greece (old Macedonia) and Albania. As the Mongols, under Kadan, headed back toward Mongolia in 1241, the Bulgarian King Koloman I paid tribute and accepted Batu as his overlord. (Ref. 5, 6)

The Kingdom of Serbia had been moving toward a high level of civilization in art and music. The kings of the Nemanjic family promulgated enduring laws, founded monasteries and encouraged learning and the visual arts. At the very end of the century, at the peak of development, religious heresies and persecutions began to destroy national unity and made way for an ultimate Turkish victory in the next century. (Ref. 7)

ITALY

In the early part of the century Italy was subjected to repeated German invasions. The Holy Roman Emperor, Otto IV, completed a conquest of southern Italy, in spite of his excommunication by the pope. When Otto was deposed by the German princes in 1211, Frederick II, grandson of both Frederick Barbarossa and the Norman Roger II, was elected king of Germany and he was crowned emperor of the Roman domains in 1220. As he was the monarch of Sicily, he had to divide his time in managing affairs in both Italy and Germany. He often kept court in Sicily and founded the University of Naples and enlarged the medical school at Salerno. Continuing an already established regulation of medicine, Frederick specified that before one could apply for a medical license, he should study logic for three years, medicine and surgery for five years, practice with an experienced physician for one year and then be publicly examined by the masters at Salerno. In Bologna the Dominican friar, Theodoric, pioneered anesthesia, using sponges soaked in opiates applied to the nose. (Ref. 8)

At Frederick II's death in 1250 his empire began to collapse but the great part of Italy was already a mosaic of city-states. Venice was the great trade center of Europe, with pepper, cinnamon, saffron, cloves, ginger, cardamon, medicines and silks coming through there from Constantinople. Genoa, as an enemy of Venice, was also powerful but since part of western Europe had stopped growing grain, Genoa had to use most of its shipping to supply its own people with food. A typical household of ten (with servants) used five and one-half tons of grain per year and a town of 2,000 or 3,000 thus had to have 1,000 to 1,500 tons of grain per annum and this was the produce of 10,000 acres of land. Genoa occasionally cooperated some with the Venetians in bringing in carpets, tapestries and fruits from or through Egypt, but in 1264 the Venetians destroyed the Genoese fleet at Trepani. (Ref. 9, 10, 11, 12)

Attempts to reunify Italy were continued by Frederick II's bastard heir, Manfred, the new King of Sicily, but he found himself at odds with the pope, who offered the Sicilian crown to Edmund, son of Henry III of England. Later, however, the head of the papal state financed the French king's brother, Charles of Anjou, in an attack on Manfred, who was killed in the battle of Benevento in 1266. Charles then tried to develop his own empire in Italy, North Africa and the

tip of the southern peninsula of Greece, where there was a remnant of the old Latin Empire. Throughout most of the century the Two Sicilies remained the richest, most advanced and tightly organized state in Europe as it remained under Angevin control. In A.D. 1282, however, Charles and Sicily were conquered by forces from Aragon in Spain¹, helped by a local revolt called the Sicilian Vespers, claiming French insolence and cruelty. The end result was that Aragon's Peter III assumed the Sicilian kingship while the Catalan mercenaries went on to Turkey.

Silk production had begun in northern Italy and Milan, a city of 200,000 ruled in this century by the Guelf, Della Torre, was already famous for its metal work. Wool was exported to the East and textile industries were developing rapidly. With respect to this there is an interesting sidelight. Local wool, chiefly from Tuscany, was of poor quality and the best cloth, on which the Tuscan merchants became rich, was bought as raw wool from Spain, Minorca, Africa, or from the Coswolds of England. In this way the shepherds of those far away isles helped to create the fortunes of the Bardi, the Medici and the Frescobaldi, who in turn financed the coming Renaissance. The wool-based wealth of Florence led to the establishment of the great Florentine banking families and the whole apparatus of modern commerce such as trading associations, modern company shares, credit systems and the like. (Ref. 14, 15)²

2

(Ref. 16)

The last half of this century was the period of the famous journeys of the Polo family of Venice. The brothers Nicolo and Maffeo traveled in Asia and China in 1255 and 1256 and made a second journey with Nicolo's son, Marco, beginning in 1271. Marco, after extensive service and traveling for the Mongol Khan in Asia, China, Burma and India, returned to Europe in 1295, only to be imprisoned by the Genoese. On page 753 there is a map showing these travels.

CENTRAL EUROPE

It is clear from the preceding paragraphs that this was the century

of the Mongol invasions of Europe. Those nomads from the East were never decisively beaten in Europe but withdrew finally by their own choice. Europeans had ignored the light Asian and the tall slender Arab horses and developed a large, massive, slow breed of their own to carry the heavy armor inherited from Roman times. Thus, they were no match in battle against the invading, nimble horses of Asia. Furthermore the same defect was apparent in the Crusades when the large European horses perished in droves, contributing to the general defeats. (Ref. 17)

GERMANY

After the installation of Otto IV, son of Henry the Lion, as emperor, the empire rapidly lost prestige to France and in effect became a loose confederacy of magnates giving little actual power to the emperor. (Ref. 18) This situation changed somewhat with the ascension of Emperor Frederick II, who, as noted above, was the grandson of Frederick Barbarossa and of King Roger II of Sicily. Frederick had been raised in Palermo as a proud Sicilian, speaking Latin, Greek, Italian, French and Arabic and with a passion for science, astronomy, falconry and ornithology. He felt that Islam was a superior world and he had Moslem mercenaries and a harem. It was he who introduced Arabic numerals and algebra to Christians and he alternately cajoled and fought with the papacy, although he would not allow his own people to deviate from the straight Catholic line and actually helped to promote the Inquisition. Frederick, himself, was a "free-thinker" and some accused him of being more Moslem than Christian. He protected Jews in spite of the pope's orders. Forced to start a Christian Crusade in 1228 he set out against his friend, the Sultan of Egypt (who had just given him a giraffe) and he came back from Egypt with a secret ten year lease on Jerusalem, Bethlehem and Nazareth and tried to take over Rome as his capital. As a result of all this, neither he nor the pope was in a position to help King Bela of Hungary when the Mongols arrived. (Ref. 19)

When Hungary fell to the Mongols, great fear penetrated Germany and it was rumored that the "Tartars" were the lost - tribes of Israel and that Jews were smuggling arms to them, with the result that at several border posts Jewish merchants were indiscriminately slaughtered. Frederick II blamed King Bela for incompetence and held the pope responsible for placing Christians

in jeopardy. At Frederick II's death, the Hohenstaufen line fell and the nobles of Germany further weakened the monarchy and let Germany fall from the leadership of Europe. The imperial administration was in utter ruin by 1268 when the Austrian Habsburg, Rudolph, became emperor. The true "Roman Empire of the German People" never did re-emerge. (Ref. [20](#), [21](#)) (See "Confederation of the Rhine", map)

In 1230 heathen Prussia was conquered by the Order of Teutonic Knights and in 1237 they also took Kurland, Livland and Estland and began to colonize those districts. In Brandenburg, Berlin was founded in 1240 on the site of an older Slav settlement. Bavaria, at that time, was ruled as several separate fiefs under various members of the Wittelsbach family.

The German people in the 13th century were morally still half pagan and their Christianity was half a cover for territorial robbery in the east. Their manners were crude, the laws chaotic. The Hohenstaufen rule during most of the century was the most brilliant of the medieval civilizations but it was already beginning to decay. Leprosy was on the increase and most cities had hospitals outside the city limits for those patients. The greatest German scholar of the Middle Ages was St. Albert the Great, a Dominican monk, who some believe was on a par with St. Thomas Aquinas. By the end of the century the peasants' lot had improved considerably due to better general economic conditions, more arable land, better markets and trade. It was the city burgher, however, who proved the most dynamic and also the most disruptive element of medieval society. The city became the cradle of a new middle class, a new corporative legal code, a new economic system and a new philosophy of life. Several German city leagues were formed - Rhenish, Swabian and the Hanseatic League. The new economic system was based on money, not on land. (Ref. [22](#))

AUSTRIA

Another Frederick, the Duke of Austria and the last of the Babenbergs, took advantage of a lull in the Mongols' advance (they were resting across the Danube) to take unoccupied areas of Hungary, although in many areas the Hungarians resisted. When the winter of 1241 came, the Danube froze (an unusual event) and the Mongols crossed over, sacking Gran (now Esztergom) and Buda and then headed for Austria itself, laying waste all lands as far as

Wiener Neustadt and their scouts were on the outskirts of Vienna. It was then, in December, 1241 that Ogedai Khan died and the home regime at Karakorum was temporarily run by his wife, Toregene, as regent, until new elections could be held. The invasion of Europe had to be postponed, as the Mongols went back to Mongolia. (Ref. [23](#)) This allowed Frederick to continue his attacks on the Hungarian Magyars but in one of the battles of 1246, he was killed. The Bohemian King Ottocar Premysl then moved in and captured Vienna, Carinthia and Carniola. In 1272 the German princes elected Rudolf of Habsburg as the German king and he promptly reclaimed the Austrian territory from Bohemia and thus both the Habsburgs and Austria made their true entrance on the European stage. It was another 10 years, however, before King Rudolf actually defeated the Bohemians, who had been trying again to seize power. Rudolf then gave both Austria and Styria to his sons. (Ref. [24](#))

HUNGARY

Hungary's written constitution, "The Golden Seal", dates from 1222. It limited the king's royal powers and was comparable to the English Magna Carta. The royal authority decreased even more with the long reign of a silly king, Andrew II. His brighter son, Bela IV, was trying to recoup the royal influence before the calamity of the Mongol invasion. He had more or less graciously received the Cumans, who were fleeing ahead of the advancing Mongols and he had even taken title as King of the Cumans. The Cuman Kotian and his last 40,000 warriors had sought asylum in Hungary in return for conversion to Christianity. By 1240 the Mongols were ready to move again and within a few weeks southern Russia had been destroyed and the Mongols had reached the Carpathians surrounding Hungary. In the following year the Hungarian campaign began under General Batu. Bela appealed to the pope for aid, but as we noted earlier he was busy defending himself against the Holy Roman Emperor and sent no help. While part of the invading army turned north to take Lithuania and Poland and then wheeled south to enter Hungary from the north, the main Mongol army came straight west through the Carpathian passes while still others came up from the south. Towns were burned, churches pillaged and women raped. The main army came down from the mountains through the snow at 60 miles a day' King Bela fought but his Cuman allies, after some misunderstanding, would not help him

and neither would Austria. It followed that with their usual trickery and superior tactics the Mongols soon surrounded Bela's 100,000 men and killed 60,000 of them. This Mongol slaughter and the famine which followed cost Hungary 1/2 of its population. After his defeat King Bela IV fled through the mountains toward Austria but then was taken prisoner by Duke Frederick because of past differences. His freedom cost the Hungarian king all the money he had, the Hungarian crown jewels and three of his western "departments". Only then could Bela and his family travel south to the safety of Croatia. The neighboring Bulgarian King Koloman had also fled to Croatia where he subsequently died of wounds incurred in a brief skirmish with the Mongols as they went through his country. The slaughter in this entire region Europe ended only with the Asiatics' withdrawal at the end of 1241. (Ref. [25](#))

After the Mongol retreat the country of Hungary was gradually re-peopled in part with Germans, Slovaks, Croats, Vlachs and Russians, although the basic population still remained essentially Magyar. King Bela IV eventually returned with more Cumans and some Romanians and he attempted reconstruction along with the building of forts for defense. Bela's son, Stephen, had married a Cuman princess to cement the Cuman relationship and when Bela died in 1270 the young man reigned as Stephen V for only two years. He was succeeded by Ladislav IV, who rejected western ways and was known as "Ladislav the Cuman". When the barons and bishops passed a law requiring the king to convert his Cumans truly to Christianity, he arrested the papal legate and married two Cuman princesses from the court of Nogai of the Golden Horde in Russia. The Mongol armies returned to Europe in 1285, attacking both Poland and Hungary but the attacks failed due to poor conception and disorganization. Although the countrysides were sacked, the cities held. Ladislav, the last of the Arpad Dynasty, was assassinated in 1290, dying without male issue. (Ref. [26](#), [27](#))

CZECHOSLOVAKIA

In 1241 when the Mongols came, both Bohemia and Moravia were ruled by Wenceslas I (1230-1253), although subject to the German emperor's control. When the northern Mongol armies went south to join Batu and Subedei after the battle of Leignetz (to be discussed in a later paragraph), they burned and killed to such an extent that later both Moravian and Silesian towns had to be resettled by

German immigrants. Certain tax benefits helped to entice them there. (Ref. 28) Subsequently, under Ottocar II (1253-1269), Bohemia had great prosperity with the opening of great silver mines, which made that one of the wealthiest countries of the late Middle Ages. Ottocar even expanded to acquire Austria under his control for a short period. It was fear of this Premysl king that led the German princes to then elect Rudolf of Habsburg as their king. Ottocar refused to recognize him and the Diet of Regensburg of 1274 therefore declared all of Ottocar's acquisitions void. He was finally defeated and killed in battle with Rudolf on the Marchfeld in 1278. The Bohemian throne went to Wenceslas II, a boy of seven, with Otto of Brandenburg acting as regent. (Ref. 29)

SWITZERLAND

Although it may not have been clearly defined in previous chapters, the country we now know as Switzerland was originally the home of mixed Celtic, Teutonic and Italic tribes, including the Helvetii, Raeti, Lepontii and Alemanni. Separated by vast mountain ranges, many "cantons" developed in the valleys. The entire area was under control of the Habsburgs until after Rudolf's death in 1291, and the cantons were then caught up in the dynastic strife of the Germans. At that time, three of the forest cantons - Uri, Nidwalden and Schwyz, formed the "Everlasting League" to give mutual aid. Soon other cantons - Lucerne, Zurich and Glarus, joined the League and they had the beginnings of the nation of Switzerland.

WESTERN EUROPE

By this time some areas of western Europe had stopped growing grain. France had put its land, in part, into wine growing and elsewhere farmers had turned more to stock-breeding. Another factor was the cheap water transportation of grain from Germany's east along the Baltic to northern and western Europe rather than to the southern areas. There had been a shift from piracy to trade along the Atlantic coast, where Vikings had previously raided. (Ref. 30, 31) The western European population rise continued throughout this century.

SPAIN

In this and the preceding century, Cistercian orders in Galicia in northwest Spain induced peasants to lease church owned waste land for 2% of the capital value, with the leases supposedly to last for three generations. This was to make much trouble later, as we shall see in the chapter on the 17th century. (Ref. 32) Castile, originally a tributary of the kings of Leon, was permanently united to Leon in 1230 and soon controlled more than one-half of the Iberian peninsula. It became a truly monarchical state under Alfonso X (1252-1284), although he soon gave lavish concessions to the nobles and therefore lost some power for the crown. The Cortes appeared as an assembly of nobles allowed to petition the king and, in a sense, to legislate, thus anticipating the English parliament. Sheep became the big crop of that area and by 1300 there were 1,500,000 of these animals in Castile alone. Mental life stirred and six universities were founded, while bull fighting became a common sport. (Ref. 33, 34)

The Kingdom of Navarre remained under French rule from A.D. 1234 to 1316. Even though many Jews had fled southern Spain in the last century, overall the peninsula still had the largest and most prosperous Jewish population in Europe. Sephardic Judaism included diplomats, tax collectors, physicians, astronomers and translators. Even in the north, however, some troubles were developing in the religious field as the Dominicans began preaching just south of the Pyrenees. On the coast at Barcelona, native sailors, with Jewish money, began an extensive slave trade in Moorish prisoners and that city became a most active Mediterranean port. Ramon Lu II, of this area, was the greatest Spanish intellectual figure of the period - poet, novelist, educator, scientist and traveler.

In the middle east of Spain the Aragon Empire was strengthened by the commercial wealth of Catalonia and Valencia and by 1281 this empire had taken the Balearics and then Sicily, as Peter III defeated Charles of Anjou. Peter's nobles formed the "Union for Liberty", however, and curtailed much of his power. The next king, Alfonso III, had to grant the so-called Magna Charta of Aragon. (Ref. 35)

In Moslem Spain, the Almohades were defeated in 1212 at the battle of Las Navas de Tolosa by the Christians under Alfonso VIII (of Castile) and were soon expelled from most of Spain. Part of the Moslem's troubles derived from the existence of many diverse, often antagonistic factions from many origins, as we have noted

previously. By 1278 the Emirate of Granada existed only as a small coastal strip adjacent to Gibraltar, while the Kingdom of Castile controlled the remainder of Spain except for Navarre and Aragon. Intermarriages of Spanish and Moors had remained common, at least up until this century, but now the preaching of the Crusades and papal propaganda prepared the Spanish mind for intolerance and later fanaticism. (Ref. [36](#), [37](#))

Up until 1291 the Moslems had prevented Christian vessels from going through the strait of Gibraltar, but in that year a Genoese sea captain seized control of the strait and thereafter Atlantic and Mediterranean sea routes could be integrated. (Ref. [38](#))

PORTUGAL

Sancho II, beginning his reign in 1223, was deposed by the pope in 1245 and the throne was taken by his brother, Afonso III. Portugal increased its borders to its modern size and the port of Lisbon became its capital. Under Diniz (1279) one of its best loved and greatest rulers, culture bloomed and Portuguese changed from a Galican dialect -to a literary language. The Portuguese navy was started and the University of Lisbon was founded in 1290. (Ref. [39](#), [40](#))

FRANCE

NOTE: Insert Map: France in A.D. 1259

By the beginning of this century in France, elective monarchy had been replaced by hereditary monarchy. The turning point of the French royalty was the conquest of Normandy in 1204, which meant the destruction of the Angevin or Anglo-Norman Empire on the French side of the English Channel. After 1214 England controlled only Gascony on the continent. Much of Languedoc was obtained by the French king in a campaign against the Albigensian heretics (1209-1229). (Ref. [41](#)) Philip II also finally defeated Otto IV of Germany, thus starting the decline of the Holy Roman Empire and allowing the beginning of strong, present day France. Following Philip came Louis IX, St. Louis, who participated in the Crusades. De Gramont (Ref. [42](#)) says the Crusades were essentially a French affair and partially exhausted the nation's colonial potential. The beginnings of industrialism created an economic revolution with

resulting class struggles leading finally to class wars. Peasants carrying religious banners fought against barons and priests alike. Nobility was first conferred by gift in 1270 and generally could be purchased, in this century. (Ref. 43) Nevertheless, this minor economic revolution stimulated the minds and energies of men and was the making of modern Europe.³

3

(Ref. 44) By the second half of the century powerful Italian firms from Florence, Piacenza, Milan, Rome and Venice were throughout France. These "foreigners" were intelligent, lively, irritating and detested as much as envied. (Ref. 45)

The French language was spoken by the elite abroad before the French nation learned it. Marco Polo wrote the account of his travels in French. Since the time of Hugh Capet (10th century) about half a dozen dialects struggled for preponderance. The Crusade against the Albigensian heretics, for instance, was less a religious struggle than France's version of a north-south civil war between the *langue d'oc* (language of the south) and the "langue d'oïl" (language of the north). The latter won. (Ref. 46)

The whole of France now used the vertical plane windmill as a source of power. By 1200 Montpellier, on the southern coast, had become the premier medical school of all Europe.

THE NETHERLANDS AND BELGIUM

The Hanseatic League continued an active existence on the Baltic Sea and their ships were now using a new, true rudder and bowsprit, which allowed better close-hauled sailing. (Ref. 47) Holland, which had been a part of the Frank Kingdom from the 3rd to the 9th centuries, then an area of German feudal fiefs, began to have some unity in this 13th century. The Hague became the capital in 1250 and Amsterdam became a great free port in about 1297. Rotterdam had also begun to rise in importance, with increasing trade with England. Hereafter Holland played a large part in the economic world. The Zuider Zee, which was originally a large, shallow lake in a swamp, became swollen with floods in this period and broke through to the North Sea, thereafter to be an arm of the ocean.

In Flanders the textile industry assumed a large scale, semi-capitalistic structure in which thousands of workers produced goods for investors of capital. Modern Belgium came chiefly from this Flanders territory. The people were Flemish, speaking a low German and Walloons, who were a mixture of Germans and French on a Celtic base, speaking a dialect of French. Throughout the Middle Ages they were variously dominated now by the English and now by the French.⁴

⁴
(Ref. 48)

BRITISH ISLES

ENGLAND

As the century opened King John (Lackland) lost all of the crown's possessions on the continent north of the Loire and got into serious trouble with the pope. To increase his difficulties his nobles insisted on limiting his powers, forcing him to reluctantly sign the Magna Charta, which was to have far reaching and long-lasting effect in the entire English speaking world. That document freed the Church of England from the monarchy, established the principles of Habeas Corpus and trial by jury, increased the power of the purse to Parliament and transformed an absolute monarchy into a limited and constitutional one. When King John died of dysentery in the next year, his nine year old son was crowned as Henry III. As he matured, Henry developed a love of splendor and unfortunately contributed very little to the English nation. His son, Edward I, who became king in 1272, however, was the best of the Plantagenet line. Because he established a Code of Laws, he has been called "the English Justinian" and he also was the foster father of the House of Commons and the first truly English king. He died in a campaign against Scotland.

There were a number of Englishmen of this century whose names live on. There was Stephen Langston, one of the great men of the early century, a builder of rights against royal, baronial and at times ecclesiastical pretensions. And there was Hubert de Burgh, a defender of the monarch but a solid champion of the rights of all Englishmen. It was a period of increased papal demands but these were resisted by Robert Grosseteste, scholar, scientist and saint,

who anticipated Wycliff. It was the time of Simon de Montfort, who led the baronial revolt and of Roger Bacon, who described the magnetic needle and reading glasses and predicted such things as the steamship and airplane. He is usually given credit for the invention of gun-powder, although there is no concrete evidence of this and we have noted that the Chinese had it in the 11th century. (Ref. 49)

Cambridge and Oxford universities were founded but all books were in Latin and there were few of these. By the end of the century London was a city of 40,000 people even though England was still 90% rural. There were 8,000,000 sheep in the country, more sheep than people and there was sheep cheese on every table. In spite of this, there were repeated famines throughout the century. Coal was mined at Newcastle for the first time in this period. By the end of the century all Jews had been expelled from England. (Ref. 50, 51, 52, 53, 54, 55)

SCOTLAND

By this time the Scottish nobility had been largely Normanized. All through the first half of the century there was poverty, war with England and war with Norway over the Hebrides, but Alexander III (A.D. 1249) at last established friendly relations with England and gave Scotland a temporary golden age of prosperity and peace. He had become king at the age of eight, with the actual ruler for the first six years being Walter Camyn, Earl of Menteith. Becoming of age, Alexander tried to buy the Hebrides from King Haakon of Norway but was laughed at and then subjected to an attack on the Firth of Clyde by the Norwegian navy. A great storm destroyed most of that fleet and Haakon had to retreat. Three years later, by the Treaty of Perth, Man and the Western Isles were given to Scotland for a monetary arrangement. (Ref. 56)

At Alexander's death, in the absence of direct male heirs, his granddaughter, Margaret, the Maid of Norway² became a child queen in 1286, with six guardians to govern in her name. All but one of these were of Norman descent. In 1290 she left Norway for Scotland, only to die on the way, and this paved the way for a great Scottish civil war over the succession with both Robert Bruce and John Balliol contesting. There was chaos for two years until Edward of England put the Norman John Balliol (formerly de Ballieu) on the throne as a vassal puppet for England. When Edward attempted

to completely subdue the Scots, as he had previously successfully done with the Welsh, he met fierce resistance led by William Wallace and Robert Bruce, in multiple, bloody battles. Wallace was eventually hung, drawn, beheaded and quartered in the lovely fashion of the English of that day. After humiliating and slaughtering many Scottish people, Edward I even captured his puppet king, John, in 1296, and for 10 years Scotland had no king. Although under British domination, Scotland still remained, in a sense, free and was actually more disposed toward France, a situation which continued intermittently for some 300 years. What had once been forts or fortified villages now became trading burghs, as a mercantile and agricultural economy replaced the ancient pastoral tribalism. Of incidental interest is the fact that leprosy was rampant in Scotland at that time. (Ref. 57, 58)

IRELAND

This was a century of turmoil and destruction for Ireland as the Irish lost their liberty to England as well as suffering repeated famines. The Anglo-Norman sections prospered while the remainder of the country despaired and the cleavage between the two peoples became very marked, a situation which remains in this 20th century. (Ref. 60, 61)

WALES

It was a time of tribal union and bardic poetry in Wales. A national revival was led by Llewelyn, Prince of north Wales, against the English Henry III but there was no great bloodshed until the latter was succeeded by Edward I. He waged war against the Welsh, using the long bow, which the English had available after A.D. 1200. Cavalry was useless in Wales but archers could score with the long shots, loosing five to six arrows in the time required for only one cross-bow shot. After many battles, Wales was finally subdued and made a part of England, in 1281, which is not to say that real peace was obtained. Coal mining records in Wales go back to this 13th century.5

SCANDINAVIA

NORWAY

Haakon the Old (1217-1263) ruled ably and generously and brought Iceland, Greenland and the Faeroes temporarily under Norwegian power. This was the era of Snorre Sturlason, who wrote *Heimskringla*, a history of Norwegian kings which was to become the chief source of early Norwegian history and the prose Edda, about Norse mythology. Haakon V (1299-1319) was the last male of the line of Fairhair. (Ref. [63](#), [64](#))

SWEDEN

The Swedish throne was on an elective basis. Earl Birger, a prime minister while his weak brother was actually king, abolished serfdom, established a reign of law, founded Stockholm and started the Folkung Dynasty by putting his son Waldemar on the throne in 1250 and then acting as his regent. He attempted to set up a European type of feudalism, establishing his other sons in quasi-independent duchies. One of these sons, Magnus Ladulos, overthrew Waldemar but continued his father's feudal innovations although family feuding continued. Meanwhile the merchants of Sweden became rich through mining and trade.

Until the middle of the 13th century Sweden had supplied 1/2 of Europe with herring, but then the cities of the Hanseatic League (chiefly German) took over this industry. Fish was always a more important food than meat for millions of people. Cod, haddock, pottock and ling all were preserved primarily by drying, but herring could not be handled this way because it was too oily. It had to be salted. In Scandinavia, such meat as was available was beaten and then exposed to a clear, cool wind, for preservation. (Ref. [65](#), [66](#))

DENMARK

Denmark had the largest population of the Scandinavian countries at this time and claimed a part of what is now the Scania province in southern Sweden. The Danes burst into activity at the beginning of this century, winning a brief supremacy in the Baltic trade. Waldemar II the Victorious temporarily conquered northeast Germany and waged three crusades for the church against the heathen Baltic states of Livonia and Estonia, penetrating the Gulf of Finland and making the southern Baltic a Danish "lake". Waldemar

is remembered by many because of his marriage to an exiled Bohemian princess, Dagmar, famous in Danish folklore. But the Danes suffered a crippling defeat in the 1220s and the German Baltic towns (later to be called the "Hanse") took over the Baltic and even the North Sea, also shutting out the Flemish by 1275. At a meeting of nobles in 1282 King Eric V was made to sign Denmark's first Royal Charter - the Magna Charta of Denmark - and the Danehof was established as a national parliament. Eric had to promise to call a national assembly once a year and to cooperate with the nobles. (Ref. 67)

FINLAND

It was a bad century for Finland. There were continued, intermittent beatings by Swedish armies who first conquered and baptized the Tavastians and then forty years later did the same for the Karelians. In the meantime the Principality of Novgorod had seized a large part of Karelia in 1220. (Ref. 68)

OVERSEAS SCANDINAVIAN CENTERS

Iceland remained the most active literary center in the Scandinavian world. The colonies on Greenland also thrived and more will be written about them under NORTH AMERICA, this chapter.

EASTERN EUROPE

SOUTHERN BALTIC AREA (See map in this section of the next chapter)

Lithuanians and Latvians were remnants of the eastern Balts, but all these people had gradually been Slavonized in the 5 or 6 centuries leading up to this 13th. We noted in the discussion above that the Danes conquered and tried to Christianize Livonia and Estonia early in the century. Tallinn, which was a Danish castle, was the Estonian name for the town of Reval, citadel of the Danish king, Waldemar II. Later, German merchants transformed it into a port for the Hanseatic League. The Danes were followed by the German Teutonic Knights along with various crusaders, monks, and Knights of the Sword, offering either conversion to Christianity or decapitation. They forged continually eastward almost completely exterminating the pagan Prussians and thinning out the Livonians.

Teutonic orders were established in Riga as early as 1201, causing the disintegration of the Curonians and Semigallians, who were two of some eleven separate, Prussian tribes. The Lithuanians, alone, resisted the Teutonic Knights and absorbed the Knights of the Sword, so that in a sense they protected the Russians. Written history of the Balts begins only at that point, as the Lithuanians consolidated themselves into a powerful state. Various Lithuanian tribes were first united about the middle of the century under Mindaugas. He was baptized a Christian in 1251 but after he and his two sons were assassinated in 1263, the people reverted to paganism. All Balts worshiped a goddess of fate, Laima, closely connected to the sun but they also had multiple demi-gods and goddesses. After they finally became Christianized permanently the Lithuanians became chiefly Roman Catholic while the Latvians became divided between Catholicism and Lutheranism. (Ref. 69)

At the beginning of the century in a period of some German civil wars, the Danish king also seized Holstein, Mecklenburg, Pomerania and the cities of Lubeck, Hamburg and Bremen, but after 1220, Frederick II defeated Denmark and reconquered these lands, thereafter redoubling the efforts to colonize them. An abundance of grain from the Baltic region helped to supply famine areas in the rest of northern Europe and barley malt allowed a large brewing industry to develop in Hamburg and adjacent areas. (Ref. 70) In this entire northern zone along the Baltic it was difficult to keep farm animals alive through the hard winters and there were long periods when no fresh meat or fish could be had, so there was much salting of meat - chiefly pork and fish - and herring was the most important in the salt fish trade. One could buy 20 pounds of meat for 5 cents, but then had to use 2 more for 2 pounds of salt, plus some peppercorns, cloves, etc., for the preservation. In all medieval cooking something had to be used to absorb the salt - bread crumbs, grain, spices, etc. in the form of sauces. (Ref. 71)

There were still some nine separate principalities in Poland under four dukedoms.

In 1241 the northern prong of the invading Mongols defeated both the Poles and the Teutonic Knights. The Mongols had sent only two tumens to take Lithuania and Poland with an aim to draw the northern European armies away from Hungary, but the Polish armies, under Vladimir, the Palatine of Sandomir and Cracow were no match for them and Cracow was abandoned on their approach

and burned by the invaders. King Boleslav fled with his family and treasures to Hungary. The Mongol generals, Baidar and Kadan, met at Breslau, the capital of Silesia, where the citizens had already burned their own city and retired into a citadel. A final battle developed at Liegnitz (now known as Legnica) where the invaders met a 25,000 man army assembled by Henry of Silesia, many untrained and ill-equipped, contingents from Oppeln and Moravia, similarly poorly prepared, conscripts from Great Poland and detachments of the Knights Templar from France and the Hospitallers. The Mongols won and after the battle they cut an ear from each dead enemy's body and sent nine large sacks of them to General Batu, as a present. Although some European historians refer to Liegnitz as a Polish victory, this is untrue and due to misunderstandings encountered in translating oriental characters and reports. (Ref. 72)

After the invasion and the Mongol withdrawal the Germans immigrated into Poland, giving a strong admixture of the German language, laws and blood. At the same time Poland welcomed thousands of Jews fleeing from pogroms in Germany. At the end of the century Poland united with Bohemia to form a single country-under King Wenceslas II of Bohemia.

RUSSIA

"The Mongol invasion was perhaps the most traumatic event in Russian history."³ After smashing the central Asian Khwarizm, the first wave of Mongols, led by generals Jebe⁴ and Subedei, sent a corps to reconnoiter southern Russia in 1221, delivering crushing defeats to Georgians, Alans, Cumans and south Russian princes. (Ref. 73) This was not easily done, however. The main Mongol force crossed the Caucasus mountains in the winter with some difficulty and descended the north slope to find a Cuman army of 50,000 men, led by the sons of Khan Kotian, awaiting them. With the Cumans were Bulgars, Khazars and Alans (descendants of the Scythians). Bribed by the wily Mongols with gold and horses, the Cumans retreated in the night, leaving their allies to be slaughtered by the Asians. The latter then simply followed the Cumans and massacred them just north of the Sea of Azov, in 1222. (Ref. 74, 75) While Subedei was defeating those Cumans, Jebe rode west to the Don River. It is of interest that while on the shores of the Sea of Azov, Subedei came across some Venetians, who discovered that the

Mongols rode with fine silk under their light weight armor and carried physicians, diplomats and interpreters with them and had an Armenian bishop and merchants who were already printing cheap Bibles and selling them to the locals. All this impressed the Venetians who then offered themselves as spies in the west. To seal this new alliance, Subedei razed the Genoese trading station at Sudak.

Rejoining Jebe on the Don, Subedei recruited 5,000 Brodniki (nomad fishermen on the lower Don) as mercenaries and then proceeded to the Dniester where his troops patrolled for several months, while his Mandarin scholars made maps of southern Russia and organized all information from their intelligence sources. Their reconnaissance then complete, they started eastward to go home. As they did so, however, spies brought in word that around and behind them the remnants of the Cumans had accumulated a new army, including forces from various Russian principalities. Greatly outnumbered, the Mongols could have easily outrun the combined armies, but they had also promised the Great Khan Genghis that they would destroy the Volga Bulgars enroute home, so they had to delay the oncoming Russians and Cumans by leaving some 1,000 men as a rear-guard on the Dnieper, under the command of Hamabek. In due time these men did their delaying job but were all killed, down to the last man. At the River Kalka the main Mongol army allowed the speeding, spread-out enemies to catch up with them and using their usual guile and splitting tactics, the Asians soon demolished the entire foe. Besides the thousands who went in backward flight, there were 40,000 Russians dead, including 6 princes and 70 nobles, all defeated by less than 18,000 Mongols and 5,000 Brodniki. This was in A.D. 1223. A little later, joined by another son of Genghis named Jochi and 10,000 reinforcements, they did strike the upper Volga and defeated the Kama Bulgars before moving on east into Asia. (Ref. [78](#))

Fifteen years after that initial reconnaissance, the Mongols returned but there were two main obstacles to be overcome before entering European Russia. The first was still Bulgar, at the junction of the Kama and Volga rivers, which had grown rich with the fur trade. Slavs and Finns had been imported to work for the Bulgars, but the Mongols were not particular and killed all of Bulgar's 50,000 inhabitants. The city has never been rebuilt and the Bulgar state became a Mongol vassal. The second obstacle was a

rejuvenated Cuman Kipchak group in the forests at the lower Volga, all of whom were slaughtered by the generals Manku and Budjek. (Ref. 79) Thus, as the Asians came into Russia they systematically eliminated in sequence the Volga Bulgars (1237), the great Principality of Vladimir (1238), the Cumans and Alans (1239) and finally the south Russian principalities. The army then split into two prongs to enter central Europe. (Ref. 80)

To go back for a moment, plans had begun for this attack in 1236, with several corps of Chinese and Persian engineers, 20,000 conscripts and 50,000 experienced soldiers of the Mongol army which included no less than ten princes. At the beginning of the winter of 1237 generals Batu and Subedei had an army of 120,000 men ready to cross the frozen Volga and enter Russia, proper. As they drove into the center of that country there developed a reign of true terror. There was mass murder and destruction, then multitudes of prisoners and booty, with the targets including Moscow, Vladimir, Dimitrov, Tver, Rostov and Yaroslav among others. With the spring thaw, Batu stopped 60 miles short of Novgorod and turned back south to join Subedei. Although thus spared at the moment, Novgorod had to beat off repeated attacks of Germans and Swedes. The hero of these latter victories was Alexander Nevsky, Prince of Novgorod, who defeated the Teutonic Knights and saved the identity of north Russia. The story is that Nevsky lured the invading Germans onto the frozen surface of Lake Peipus, which broke beneath the weight of their horses and armor. (Ref. 81) To continue to elude Mongol devastation, however, Nevsky soon had to begin to pay continued tribute to the Asians and recognize their overlordship. (Ref. 82, 83)

During the summer of 1239 the Mongols rested in the western Ukraine while fresh herds of horses were brought in from Mongolia. In the following winter all surrounding nomad nations were taken and plundered. Prisoners of Cumans, Circassians and Alans almost outnumbered their Mongol captors and most were sold into slavery, chiefly to the new sultan of Egypt to augment his Turkoman army. By 1240 the completion of the Russian invasion was initiated with the destruction of Chirigov and then Kiev. From there it was on to Poland and Hungary as detailed in the paragraphs above on CENTRAL EUROPE and the SOUTHERN BALTIC AREA.

After the Mongols withdrew from Europe upon the death of the Great Khan, life in Russia was reduced to a barbarous level and to

add insult to injury, the Mongols left powerful revenue collecting agents and a pattern of ruthless terror and efficient extortion. (Ref. 84) Batu went back to Sarai on the Volga, 60 miles south of Astrakhan, where his brother, Sinkur, had been left in command. Here Batu established his capital and remained to organize a new empire. Subedei and the other princes went back to Mongolia. Sarai was soon to be a capital which rivalled Karakorum, itself, and Batu's empire subsequently became known as the "Golden Horde". When Batu died in 1258, his brother Berke, a Moslem, took control and started a type of civil war against another Mongolian army headed by Hulegu, in the mid-east. Thus the great Mongol domain began to fragment. Many of Berke's soldiers were Mamluks up from Egypt. At the end of the century Berke and his successor, Mangu-Temur, granted high estates to their noyans (commanders) and reinforced the feudalism that was to paralyze Russia for the next 600 years. (Ref. 85) In the final divisions, the Khanate of the Golden Horde included western and southern Russia; the Khanate of the White Horde occupied the area about the Aral Sea; and the Cheibanid Khanate (from Khan Cheiban) was located north of the White Horde. (Ref. 86)

The Mongols had made peace with the Russian Church, protected her property and personnel and in return the church preached submission to the Asians. The church became immensely rich while the people, as a whole, remained beaten, humbled, stagnant and poor. Kiev never recovered sufficiently to resume leadership and control passed from the Ukraine to "Great Russia" around Moscow and the upper Volga. The first chapter of Russian statehood, characterized by a blend of Norse politics and Byzantine religious and cultural influence, had come to an end. (Ref. 87)

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[135] MAZOUR, ANATOLE G., *Russia, Tsarist and Communist*. (D. Van Nostrand Co., Inc. Princeton, New Jersey 1963).

1. These were the famous mercenary Forces of the Catalan Company, who destroyed an army of chiefly French knights, using crossbows. (Ref. 13)
2. Alexander had managed to marry his daughter, Margaret, to Eric, son of King Magnus of Norway, and this child was their offspring. (Ref. 59)
3. Quotation from *Times Atlas of World History*, (Ref. 76), page 114
4. Another authority, Lamb (Ref. 77), spells this name "Chepe"

Europe: A.D. 1301 to 1400

EUROPE

Early in this century Europe, as a whole, experienced some extremely heavy rains and hard, severe winters in an otherwise warm period. Gunpowder was in use in Flanders, Germany, Italy and Moslem Spain early in the century and then in France and England in the second half. (Ref. 1, 2) Near the end of the century blast furnaces were developed, first in Germany and/or the Netherlands, but soon used also in France. Water powered bellows promoted these furnaces which then produced cast iron and "steeled" iron for the first time in Europe. Larger, stouter ships were now available which could sail as safely in winter as summer, making possible a still greater commercial web all around the continent. Bills of exchange and credit facilitated this commerce. From this time on European allowance for the private accumulation of relatively large amounts of capital made the fundamental superiority of this region over the rest of the civilized world. (Ref. 3, 4)

The aggressiveness of Christian Knighthood which had sent Germans to the Gulf of Finland, Crusaders to Jerusalem and attackers against the Moslems in southern Spain and Italy, came to a slow-down, as the basic foodstuffs for their support could no longer keep up the pace. The mold-board plow was not efficient in arid parts of Spain and in the cold of northern and eastern Europe. (Ref. 5)

The Black Death (plague) killed perhaps 1/3 of the population of Europe. Pope Clement VI gave a score of 42,866,486 dead, but this may be a mild exaggeration. (Ref. 6) Crop failures and the severe winters had already hit northern Europe and depopulation had begun. Then in 1346 a Mongol prince laid siege to Caffé in the

Crimea. His army came down with plague and he withdrew, but the disease had entered the city and from there it spread by ship throughout the Mediterranean and ere long to northern and western Europe. The initial shock of A.D. 1346 was so severe that it spread not only by flea bite, but also from person to person by inhalation of droplets from coughing patients. Such lung infections were 100% fatal and the overall mortality rate probably was 60 to 70% of those infected. (Ref. 7) In this same period, western Europe and Germany had economic depression, prolonged and devastating wars (England and France) and political fragmentation (Germany). After recurrent plague epidemics of the 1360s and 1370s there were widespread manpower shortages in central and western Europe. In contrast, there was a rise and consolidation of powerful states in eastern Europe and there were far flung results from the mass production of paper. (Ref. 8)

Cookery for the average European remained, as in the past, prosaic at best. Alleged feasts at courts consisted chiefly of gorging on meats and wine and were rare events not available to the common man. There was a great change in costumes. Men's clothes were shortened and their tunics became form-fitting, never to return to robes, while women's bodices became more close-fitting and cut with large décolleté. (Ref. 9)

SOUTHERN EUROPE (See map on page 660)

EASTERN MEDITERRANEAN ISLANDS

The islands close to the eastern shore were involved in some of the Crusade adventures and in this century Rhodes was taken by the Knights Hospitalers. Most of the other islands were dominated by Venice. Cyprus was worst hit by the Black Death in 1347. (Ref. 10, 11, 12)

GREECE

After the murder of their leader, Roger de Flor (see TURKEY, page 659), the Catalan Company raided through the Balkans and down into Greece, setting up their own dynasty in Athens in 1311. As the Serbian Empire grew, most of northern Greece became part of the Serbian Principalities, while the Despotate of the Morea

(Peloponnesus) passed from the Latin French, who had controlled it in the last century, first to some Aragonese and then to some freebooters from Navarre. Most of the Aegean islands were controlled by Venice. Although corrupt and frail, the Byzantine state was competent enough administratively to stand as somewhat of a bulwark against the spread of Islam and by the end of the century was making some inroads back into control of part of Greece.

The Turks of the Ottoman Empire, however, settled the question in 1389 by overwhelming the Serbian chivalry at the battle of Kosovo and as the Serbian Empire shriveled, most of Greece went to the Ottoman sultanate. A few Latin states remained in the west and Venice held on to the southern tip of Morea. (Ref. [13](#), [14](#))

UPPER BALKANS

The mercenary Catalan Company laid waste to Thrace and Macedonia between 1305 and 1311 but otherwise the early 14th century saw the peak of progress for all the Slavic peoples in this region. Serbia, under Stephen Dushan, Czar of the Serbs and Greeks, had a parliament of nobles and coded laws and a magnificent period of art. (Ref. [15](#)) Militarily the Serbs conquered Bosnia, Albania, Macedonia and Thessally and put an end to Bulgar power until Dushan's death, when the empire fell apart. Then Bosnia (west central Yugoslavia), which came under Hungarian rule after 1328, became independent in 1353 and had a short period of glory. Croatia, on the coast, and Slavonia were both under Hungarian rule. The Latin-speaking Wallachians and Moldavians, inhabiting modern Romania, were first mentioned at the beginning of this century. Although they later claimed to be descendants of Roman colonists of the 2nd century, this is improbable.

Almost certainly the Vlachs came from the western Balkans and only migrated into Romania as the nomads abandoned it in the late 13th and early 14th centuries. Wallachia was under Hungarian suzerainty until 1369, then independent until 1389 when it became an Ottoman tributary. Moldavia became independent in 1365 but fell under Lithuanian control in 1399. Bulgaria, under John Alexander, had its last great age. (Ref. [16](#), [17](#))

The expansion of the Ottomans during the reigns of Orkhan and Murad I (1316-1389) was actually due to the action of semi-independent Turkish marcher lords, but with the ascension of

Bayezid I in 1389, the conquest speeded up, with the absorption of Bulgaria and the reduction of Serbia to vassal status. Some of the Serbian Christians even helped the Turks in their conquest and more of ten than not Greek, Serb and Bulgarian peasants welcomed the conquerors as liberators from the oppression of Christian, rural aristocrats. The final test of strength between the heirs of the Serbian Nemanjic family leadership and the Ottomans came at Kosovo Polje in 1389, with the former meeting complete defeat. One of the effects of the Ottoman expansion was the conversion to the Moslem faith of bright young Christian boys who were taken to Moslem schools and their family memories purged, to the end that they were forged into a corps of fearless and devoted followers of the Turkish regime. Some were used as pages and administrative aides while others were put in regiments of the guards, forming the famous Janissaries, pledged to fight the enemies of the sultan and Allah. (Ref. [18](#), [19](#), [20](#))

ITALY

Italy remained a conglomeration of contending city-states. The general economy was poor at the beginning of the century, with the Black Death killing 60,000 in Florence and 100,000 in Venice, great famines from 1315 to 1317, a decrease in manufacturing and trade and banking failures, particularly that of the Peruzzi and the Bardi houses in Florence. Naples was subject to France, under the House of Anjou and the rising Spanish power, Aragon, seized Sardinia in 1313, while Genoa took Corsica. Venice continued as a great power but had a serious uprising against its oligarchy in 1310. This "Tiepolo's Rebellion" was crushed, but it led to the permanent creation of an emergency committee called the "Council of Ten". Venice and Genoa kept up their battle on the seas throughout the century, with Venice the ultimate winner. (Ref. [21](#), [22](#), [23](#))

It was in this century that mercenary armies became standard in Italy. Armed adventurers, often from north of the Alps, got together under various leaders and either blackmailed local authorities or plundered the countryside. One band of 10,000 armed men and twice as many camp followers fought its way across central Italy, acting in effect, as a migratory city. For protection against such mobs, citizens of the cities taxed themselves to hire mercenary soldiers and the latter reimbursed the citizens, in a sense, as they

spent their pay in the community. Thus was armed violence commercialized in Italy. (Ref. [24](#))

Overall, Italy did not stay "down" for long. In spite of the turmoil mentioned above, Italians were the primary managers of the commercial economy of Europe, with trade centers in Venice, Genoa, Florence, Sienna and Milan. This involved wholesale buying and selling, organizing projects in backwoods regions and extending credit. So extensive was their European financial dealings that the bankruptcy of the English King Edward III in 1339 triggered a general financial crisis in Italy. (Ref. [25](#)) The Rinascita, or rebirth of the Classic Spirit, began in 1378 in Florence, financed by the money of the Medici family. This was the beginning of the humanist movement of emphasis on philosophy rather than religion, as the educated Florentines ignored some of the dogmas of the church and devoted themselves to the enjoyment of beauty in women, man and art. This state of bliss was marred some in 1345 when the industrial workers attempted to overthrow the ruling business oligarchy. There was much business in Florence as merchants there handled between 5,000 and 10,000 tons of Sicilian grain every year. (Ref. [26](#))¹

1

All Europe had a general recession, which was followed by the Black Death. At the end of the century Jewish bankers, long kept at arms length, made their entry into Florence and settled there as money lenders in the next century. In Florence secular education was organized, with up to 10,000 children (out of a total population of 100,000) attending school. Over 1,000 of those went on to high school, training specially for merchant apprentices. A boy stayed there until age 15, studying arithmetic and accounting. The merchants were an educated group. (Ref. [27](#))

Although the European slave trade had almost died out, the decrease in population occasioned by the Black Death and famine resulted in Florence authorizing the import of slaves, providing they were infidels. By the end of the century almost every household had at least one, usually female, of Circassian, Tartar, Greek or Russian origin. All of this led the way for the Renaissance, which consumed all Italy in the next century. Toynbee (Ref. [28](#)) says that this was a period of withdrawal and isolation from the rest of Europe, with

new economic, political and cultural ideas developing. It was the age of Petrarch and Boccaccio and Dante, all of Florence. By the end of the century, in addition to Florence, there were Italian states of Venice, the Papal States, Naples and perhaps the most powerful of all - Milan, under Visconti lords. (Ref. [29](#), [30](#), [31](#), [32](#))

CENTRAL EUROPE

GERMANY

The Hanseatic League, originally established primarily by traders of the Netherlands and Flanders, now included some 52 towns, most of them German, including Bremen, Cologne, Danzig, Dortmund, Hamburg and Hanover. (Ref. [33](#)) At this time Germany was essentially a federation of provinces, each ruled by secular or ecclesiastical princes acknowledging a limited fealty to the head of the Holy Roman Empire. Ludwig Wittelsbach of Bavaria made himself emperor and then battled with pope John XXII over the imperial succession and finally crowned his own pope. (Ref. [8](#)). William of Occam, a Franciscan theologian and philosopher, took refuge with this Emperor Ludwig IV, after he had been excommunicated in England. He was important as a forerunner of Martin Luther, in attacking papal claims to temporal authority and appealing to the authority of the Bible. Bavaria was briefly united under the Wittelsbach emperor but at his death the imperial crown went to Charles IV of Bohemia. In this century, the Brandenburg rulers became members of the Electoral College which chose the German king and emperor, but Wittelsbachs, Habsburgs and Luxembourgs all contested for the crown while papal intervention contributed to monarchical weakness. (Ref. [34](#))²

2

This meant 150 to 200 ruling people out of 20,000 in the town and another 20,000 in the district. (Ref. [35](#))

Although it was a period of degeneration in some areas of Germany, there were also new ideas appearing that foreshadowed a more modern state. One of these was a growing territorialism, with the formation of Standestaaten, or states based on estates, without feudal arrangement and with the gradual establishment of non-

noble, civil service, pointing the way toward more centralized communities. The second concept was that of bourgeoisie. In 1300 only 811 towns north of the Alps had a flourishing trade but by 1450 there were 3,000 such towns. Leagues of these were formed for mutual protection and the acme of this was the Hanseatic League, which reached its high point in this century. Salted herring made the merchants of this Hanse wealthy. Although the fundamental basis was economic, the League used war, if necessary to protect its interests. The merchant families formed a new class of patricians and guilds appeared for artisans and workmen. The still famous Loewenbrau brewery was started in Munich in 1383. Blast furnaces, which allowed iron to be cast, resulted in the transformation of European iron technology, a feature which, in turn, revolutionized warfare by decreasing the usefulness of castles and the value of chivalry. (Ref. 36) A final factor of importance in this era was the Teutonic Knight. Even by 1300 Germans had pushed beyond the Elbe, seizing the Baltic littoral and settling in Poland and Hungary. (Ref. 37, 38, 39)

Cruel persecution of Jews reached a peak, with wholesale murders in Swabia, Bavaria and the Rhine as well as in Switzerland and Austria. Famine, followed commonly by the Black Death, reached almost every German village. Many felt that the epidemic was a judgment of God and they joined a fanatic religious movement, the "Flagellants", who turned on the Jews in many areas, accusing them of causing the plague by poisoning of the wells. Jewish persecution may have accelerated the eastward shift of the Jewish population in Europe and helped to populate Poland with Jewish merchants. Economically, wage and price patterns were disrupted, class conflicts were exacerbated and an increased personal mysticism appeared within the Christian religion. (260,140).

AUSTRIA

Although subject to the Holy Roman Emperor, the Habsburgs controlled the duchy of Austria and were gradually extending their holdings. By the time of Rudolf IV (1356-65), the family had consolidated their position and Austria was a major power. The University of Vienna was founded in 1365 (Ref. 40)

HUNGARY

Hungary began the century with close to 1,000,000 people, consisting in a minority of Magyars ruling a majority of Slavs. The Arpad Dynasty became extinct in 1301, and Charles Robert of Anjou was brought in to rule and with French and Italian ideas and wines, Hungary became a western state. Industrial immigrants began to arrive from Germany, Flanders and Italy. It was a century of some glory and essentially peace for Hungary and adjacent states. One-third of all the gold production in the world, in the amount of 3,000 pounds each year, came from Hungary. Charles Robert set up a systematic fiscal policy with that gold as a base. Charles' son, Louis, although still an Angevin, became one of the greatest kings and was called "the Great", chiefly because of territory gained and his added assumption of the Polish throne in 1370. Some estimates give up to 3,000,000 people in Hungary by that time. The government was typical of European feudalism with nobles supplying military support for the monarch. Allied with Genoa, Louis had a long struggle with Venice which ended in the Peace of 1381 in which Venice ceded Dalmatia and paid tribute. Serbia, Wallachia and Moldavia all recognized the suzerainty of Louis and he even had a victory over the Turks in northern Bulgaria in 1366. At Louis' death his daughter Maria became queen and married Sigismund of Luxemburgs who became guardian of the kingdom. This situation was soon challenged by Charles of Durazzo and Naples, who had a large following in southern Hungary and Croatia and he became king in 1385 only to be assassinated about a year later. This resulted in a Croatian revolt and it was 1387 before Sigismund regained control and this time assumed the throne, himself. He was absent from the country most of the time, however, and there was a marked decline in royal power. In 1396 there was a disastrous loss in battle with the Turks, Dalmatia was taken again by Venice and there were Hussite invasions from Bohemia as a result of Sigismund's attempt to gain the Bohemian throne. (Ref. [41](#), [42](#))

CZECHOSLOVAKIA

Like Austria, Bohemia was a part of the German Holy Roman Empire, but with its own king. After the death of Wenceslas III (1306), the ancient Przemyslid line ended and a foreigner, John of Luxemburg, son of Emperor Henry VIII, was brought in to form a new dynasty, making Bohemia a part of the West. Limited in power

by written law and subject to actions of a national diet, he actually showed little concern for Bohemian affairs. In spite of this Bohemia became a power in international politics. John supported the Teutonic Knights against Lithuania and for a time ruled western Lombardy, as well as the Tyrol. He died in the battle of Crecy, fighting on the side of the French. His son became King Charles I and soon Emperor Charles IV of the Holy Roman Empire. He was the greatest of the Bohemian kings, maintaining peace with the Germans, organizing good government, rebuilding and beautifying Prague and founding the University of Prague as the first university in central Europe. By the Golden Bull, initiated in the empire in 1356 transforming it from a monarchy into an aristocratic federation with seven electors to vote on the emperor and other matters, the King of Bohemia was given first place among those electors. Charles was a bright young man in every way except as a military leader and was the last of the great medieval kings. His one black mark was his subsidizing of the massacre of Jews and giving of their property to his supporters. His son and successor, Wenceslas IV, was a useless alcoholic and the remainder of the century was one of political chaos and degeneration. At the end of the century John Huss was pushing for the use of the vernacular in church liturgy and a religious movement known as Hussites began to form. Slavic nationalism rose in full force and added another disconcerting element. (Ref. [43](#), [44](#))

SWITZERLAND

The Swiss were the best soldiers in Europe and were frequently hired out as mercenaries and they repulsed all attempts of the Austrian dukes to enforce feudal rights. In 1315, after defeating the Habsburg dukes by rolling rocks down the hills on to the knights, at the battle of Morgarten, three cantons made the further step of forming the Swiss Confederacy, on their way to establishing the most stable and sensible democracy in history. Soon the original three cantons had been joined by five others. The Confederacy, however, remained a part of the Holy Roman Empire, although the southern communes emancipated themselves from the domination of the House of Habsburg by defeating Leopold II of Swabia, in 1388. Blamed for spreading the Black Death, Jews were persecuted at Lake Geneva and Basel. (Ref. [45](#))

WESTERN EUROPE

Famines, the Black Death (1346-53) and social and economic strife reordered the manorial system throughout western Europe, with the previous servile tenant becoming either a free-holder or wage worker. Laborers organized and revolts erupted. (Ref. 46) After 1350, for a hundred years there was a sharp drop in population and concomitantly a rise in the standard of living for the survivors of the epidemics and famines, as they inherited property and had more land for use and could concentrate on only the good, productive land. (Ref. 47)

SPAIN

Racially and geographically Spain was lacking in unity. Its population was a mixture of many stocks - Iberian, Celtic, Carthaginian and Roman, Teutonic and Arabic, Moorish and Jewish - and its mountains had prevented it from acquiring homogeneity.

In the Christian areas they had only religion in common. The one saving grace of 14th century Spain was wool, the chief source of royal revenue. By 1400 this country was exporting wool all over Europe and especially to Tuscany, while English exports there had dropped. (Ref. 48, 49)

Bands of mercenaries employed by every side took place in dynastic wars over most of the country. Although the successors of Alfonso X were not very capable, Alfonso XI (1340) did defeat an attack of Spanish and Moroccan Moslems and ended the African menace. This battle of Rio Salado (1340) saw perhaps the first use of cannon in Europe. (Ref. 50) Throughout the Hundred Years War, Castile supported France but tried to avoid actual hostility with England. Pedro the Cruel came to power in mid-century and, helped by the Franciscan monks, promoted a terrible persecution of Jews. Some of the latter converted to Christianity while others fled or were killed. Otherwise Pedro's reign was little more than a dynastic struggle with his half-brother, Enrique (Henry) Trastamara.

The French, outraged by Pedro's treatment of his French wife, sent Du Guesclin to Spain to support Enrique, while the English supported Pedro until they, too, became estranged by the king's viscous character. Ultimately Enrique defeated and killed Pedro and subsequently reigned as Enrique II Trastamara. In Spanish history this was the "Trastamara usurpation" of 1369. Peace was made with

both Aragon and Portugal by 1374. (Ref. [51](#)) Enrique's son, John I, and grandson, Enrique III followed him on the throne before the end of the century.

In Aragon territories, James II held Sardinia and Corsica, while giving Sicily to his brother Frederick. There was continued turmoil among the nobility, however, with Alfonso IV ruling from 1327 to 1336 and then giving way to Pedro IV who ruled from 1336 to 1387. He was virtually a prisoner of the nobility for much of that reign and was eventually succeeded by a nephew, John I of Aragon. Pedro's daughter, Eleanor, married another John, son of Enrique of Castile, so that these two communities became reconciled. Granada remained under Moslem rule, tolerant and prosperous. The physician Ibn-a Khatib described the contagious aspect of the Black Death, in contrast to the general concept of the times, which was that it was due to divine vengeance.

PORTUGAL

The great king Diniz was succeeded in 1325 by his son, Afonso IV. The latter had a troubled reign, including civil war with the opposition led by his son, Pedro (Peter) I. Under Ferdinand I further war with Castile occurred as Castile's Juan (John) claimed the throne because of his marriage to a Portuguese princess, - Beatrix, but the Castilians were beaten at the battle of Aljubarrota on August 14, 1385, which became Portuguese Independence Day. Under the Avis Dynasty, with John I the Great, Portugal entered the greatest period of its history. John married John Gaunt's daughter, Philippa, thus making the subsequent Avis family part English. (Ref. [52](#), [53](#))

FRANCE

The States-General met for the first time in 1302. Everywhere the new monarchies were finding a powerful aristocratic reaction and it was a particularly bad century for France. In addition to the revolt of the nobles there were labor-employer troubles and then England's attempt to conquer France, which began the Hundred Years' War in 1331. This came close to initial success with victories for England at Crecy in 1346 when Edward III's 4,000 knights and 10,000 English and Welsh longbowmen defeated Philip VI's 38,000 assorted heavily armored men and again at Poitiers in 1356, when the Black Prince of Wales took France's Jean II (John) prisoner. (Ref. [54](#), [55](#)) Cannon were first used at Calais, in 1347. (Ref. [56](#)) Unrest in Paris in that

same year was led by Etienne Marcel and eventually led to violence. French expansion eastward was checked by the expanding Duchy of Burgundy. As can be noted on the accompanying small maps, by 1360 England controlled all of the southwestern portion of modern day France. By 1380, however, Charles V had retaken most of that territory. The devastation of the crops was responsible for more deaths in that war than the battles themselves. When Genoa, reeling from a final defeat by Venice in 1396, accepted French protection, the stage seemed set for a full-scale French intervention in Italy, but this was not yet to be as Charles VI, inheriting the throne, became insane and the French government was paralyzed. (Ref. [57](#), [58](#))

France had other problems in this century. Four general famines occurred and there was a crisis in north European salt production, partly because of the Hundred Years' War and partly because of economic conditions. The chief source of salt then became the beach pans of Bouigneuf Bay in southern Brittany, but this was of poor quality. Other problems were religious in nature. Early in the century Philip IV, wanting the Knights Templars' property, forced Pope Clement to allow the Grand Inquisitor, Guillaume of Paris, to prosecute the Templars as heretics. De Molay was burned at the stake in this activity and thus became a martyr. Since the Knights, originally an ascetic Catholic order, had over the years become very wealthy and were serving as the bankers of civilization, their prosecution could not help but interfere with the country's economic as well as religious activities. France expelled all Jews in 1394. (Ref. [59](#), [60](#), [61](#))

NOTE: Insert FRANCE IN MID-14TH CENTURY (1328/1360)

Credits can go to some Frenchmen of this century, however. Jean Buridan wrote on theoretical physics and astronomy, anticipating Galileo, Descartes and Newton. Henri de Mondeville and Guy de Chauliac were great French surgeons and Nicole Oresme developed a system of co-ordinates and employed graphs to show the growth of functions, preparing the way for Copernicus. (Ref. [62](#), [63](#))

NETHERLANDS AND BELGIUM

The Dutch had succeeded in reopening the trade route around the Danish peninsula and had somewhat overcome the dominance of

the Germanic Hanse in the Baltic trade. (Ref. 64) Growing realism and individualism in the arts was the most striking feature in the Netherlands, whose culture was strongly and proudly Germanic. (Ref. 65)

Farther south in Flanders¹ as early as 1302 there was a general uprising against French influence and the burgher oligarchy. In spite of this and a great famine lasting from 1315 to 1317 which greatly affected Flemish cities, Flanders enjoyed a great economic development and along with Brabant had become the largest industrial complex in northern Europe, chiefly exporting woolens. As labor-employer troubles developed, however, a communistic type of organization appeared. As the English began to dominate the commercial activities in Flanders, a political crisis developed and the communes made the Count of Flanders, Louis of Nevers, prisoner (1325). Philip marched in, massacred the burghers on the field of Cassel and established French administration again. When England's Edward III replied with an embargo on wool export from England in 1336 the weavers of Ghent, under the wealthy James van Artevelde, became virtual masters of the country and made a commercial treaty with England. When Edward then declared himself King of France the Flemings recognized him as their sovereign and made a political alliance with him, all of this becoming a part of the start of the Hundred Years War. In 1369 the daughter of the Count of Flanders married the Duke of Burgundy with a two-fold result. First, there occurred a concentration of Flemish, French and Burgundian artists in the Burgundian cities and secondly after 1384 control of Flanders passed to Burgundy. (Ref. 66, 67, 68)

1. Flanders is an area which today makes up most of western Belgium but includes also a portion of France. Most of the people speak a Germanic tongue, Flemish, and are known as Flemings

BRITISH ISLES

In Great Britain, as a whole, the Black Death dropped the population from 3.7 million in 1348 to 2.2 million in 1377 and it dropped another 100,000 in the next 50 years.

ENGLAND

The basic cause of the Hundred Years War between England and France was the dynastic quarrel which started with the conquest of England by William of Normandy in the 11th century and which created a state lying on 40th sides of the channel. In this 14th century the English kings still held the Duchy of Guienne in southwest France and they resented paying homage to French kings. Edward I had spent most of his life fighting the Scots and finally was defeated by them, while Edward II was a weak ruler who was finally forced to abdicate in favor of his fifteen year old son, Edward III, while the latter's mother and paramour, Roger Mortimer, actually ruled the nation. Meanwhile Edward II had died in a dungeon, supposedly by means of a red hot poker inserted through a pipe into his rectum, so that there were no external signs of violence. Coming of age, Edward III became upset over the way the French were treating the Duchy of Guienne as well as their activities in the Lowlands and he declared himself the King of France and sent armies through the Low Countries to France, to prove his claim. This king was the most spectacular of the Plantagenets, a conqueror, brave, but extravagant, ostentatious and shallow. His son, another Edward, was the famous Black Prince of warrior fame, who first won and then lost a great part of France for England during the Hundred Years War. Rather than being acclaimed a hero, he seemed to antagonize the people. He never reigned as king because he died before his father and it was his son, Richard II, who became a child king with John of Gaunt, his uncle, serving as regent. (Ref. [69](#), [70](#))³

[3](#)

(Ref. [71](#))

In spite of the intermittent warfare², business had a great emergence, with new tycoons developing in the wool industry. After 1350 so much of the locally grown wool was made into cloth in England that the weavers of Flanders and Italy had to get and use poorer wool from Spain and Ireland. This was also a period of semi-renaissance, with a more general desire for education and a sudden surge of interest in university training. Oxford enlarged and new colleges were started, including Exeter, Oriel and Queens. Balliol had been built in the previous century. (Ref. [72](#), [73](#))

But England also had its troubles in this century. Early on, heavy rains wrecked harvests and destroyed the vineyards. Then the Black Death (bubonic plague) rolled into England in 1347 and returned again in 1361 and 1368, killing from 1/4 to 112 of the entire population. Because of the decimation of the laboring class, labor trouble subsequently developed. Some refused to work because of low wages and became bandits. One great revolt of the workers, the Wat Tyler rebellion, was finally put down in 1381 by young King Richard II, after some concessions were made. In 1399 Henry Bolingbroke of Lancaster, son of John of Gaunt, beat Richard in battle, imprisoned him and took over the realm as Henry IV, ending the Plantagenet Dynasty. It should be mentioned that war with the Scots was another ever present threat to England throughout this century and frequently a reality. (Ref. [74](#), [75](#), [76](#))

Of some interest is the further development of the English language at this time. In 1362 Edward III ruled that English, rather than French, should be used for public trials and that was the first decisive defeat for the French language on the islands. Then English replaced Norman French in the schools and became the accepted language of the nation. Richard Rolle, who died of the plague in 1349, was the father of English prose, as he amalgamated Old English, Norman, French and Latin in a written language that had previously only been spoken. Geoffrey Chaucer lived and wrote in this type of English between 1340 and 1400. John Wycliff was partly responsible for the first complete, vernacular English Bible and this at a time when the established church felt that Bible reading by the masses was heresy. The poor priests who followed Wycliff (also Wyclif and Wiclif) were called Lollards and soon it was said that every fourth man in England was a Lollard, in that they adhered to his doctrines, which emphasized the purely spiritual function of the church, with direct access of the individual to God. Advocating a property-less church, Wycliff was opposed to the auricular confession and was in favor of the reduction of the importance of the sacraments. (Ref. [77](#), [78](#))

SCOTLAND

As the century opened Scotland remained without a king and suffered continual internal strife and external warfare with England. In early 1306, after a bloody confrontation with John Comyn the Red, Robert Bruce, a descendant of de Brus, was crowned King of

Scotland. Immediately King Edward I of England started mobilization of forces to send north against him. Not ready for war, Robert I promptly disappeared into the western islands where, over the next many months, he gathered bands of Islemen, Irish and Gaels to initiate guerrilla warfare. Edward died in 1307 but the battles went on, with Robert making surprisingly successful raids on English strongholds, taking advantage of the weakness of Edward II. A great battle was finally fought at Bannock-burn, just south of Stirling, in 1314, with Robert I and 30,000 Scots defeating 100,000 English. An independent Scottish kingdom resulted with Robert I Bruce the unchallenged monarch. Bruce's daughter, Margaret, married Walter "the steward" and became the founder of the house of Stuart. (Ref. [79](#), [80](#), [81](#), [82](#))

Upon Robert's death, possibly from leprosy, his son David II succeeded him in 1329, nominally ruling for 42 years, although his regents had to fight constantly against usurpers and attacks from England. Edward III gave the Scots one of their worst defeats at Halidon Hill, forcing the boy king David Bruce to be taken to France for protection, while Edward Balliol (also Baliol), with English support, took over the throne. When Edward III turned to fight France, David II returned to his own country and Balliol was thrown out. In 1346, however, at the battle of Neville's Cross, David was captured by the English and spent 11 years in the Tower of London. He was finally released after an agreement wherein Scotland was to pay 100,000 marks in 10 yearly installments. Only 1/4 of this was actually ever paid. During these same years, Scotland suffered with England from the terrible scourge of the Black Death, chiefly of the pneumonic form. (Ref. [83](#), [84](#), [85](#))

The Steward (Stuart) line was established on the Scottish throne in 1371 by Robert II Steward, nephew of David II and descendant of Walter Fitz-Alan (high steward of Scotland in 1136) and with France as an ally his nobles fought England again, all as part of the Hundred Years War. Robert III succeeded to the throne in 1390. There was great poverty in Scotland, except among those nobles who had the military power and dominated the Parliament and the King. The villages had a measure of self-government within the framework of feudalism and monarchy. Industry was primitive, commerce precarious and the cities small and few. All Scotland had about 600,000 people. (Ref. [86](#), [87](#))

IRELAND

Edward Bruce, brother of Robert Bruce of Scotland, landed in Ireland in 1316 and with the support of some native leaders, had himself crowned king, although he lasted only two years. By 1350 the Normans controlled most of Ireland, although during this and the next century they adopted Irish customs. The Irish Parliament, made up almost entirely of English Normans, passed in 1366 the infamous Statute of Kilkenny, which forbade inter-marriage between English and Irish "to prevent Gaelicization" This government of Ireland, emasculated by the English, soon became very corrupt. That statute, followed by the Black Death epidemic of 1348 and 1349 started the decline of English influence in Ireland, as the viceroys and governors were unable to maintain order. (Ref. [88](#), [89](#))

WALES

Remained restlessly under English rule.

SCANDINAVIA

Fishing replaced agriculture as the chief economic activity of both Scandinavia proper and Iceland. Near the end of the century, Margaret ruled as queen and regent over all three of the true Teutonic Scandinavian countries - Norway, Sweden and Denmark - in a wonderful reign lasting into the next century.

NORWAY

Magnus II, who was also King of Sweden, ruled Norway as king from 1319 until he turned the Norwegian crown over to his son Haakon VI in 1343. Margaret, daughter of Denmark's Valdemar IV, was married at ten years of age to King Haakon VI and ten years later she had a son, Olaf, who became king of Denmark when Valdemar died and then king of Norway when Haakon died. When Olaf expired in 1387, Margaret was elected as Queen, thus introducing the system of election already in practice in Denmark and Sweden.

SWEDEN

Magnus II became the Swedish king in 1319 at the age of three years, with his mother as regent and effective ruler. Through his

mother Magnus also succeeded to the Norwegian crown and during a troubled period in Denmark actually gained Scania, Halland, and Bleking temporarily for Sweden. Even after he assumed the reign for himself, there was a definite weakening of the royal power and a rise of the aristocracy. The first meeting of the Riksdag, which included nobles and burghers, was in 1359. By 1363 Magnus was deposed and succeeded by Albert of Mecklenburg, who was always a tool of the nobility. They eventually dethroned him in 1388, calling in Margaret, already Queen of Norway and regent of Denmark, thus uniting all three countries. Officially she formed the Union of Kalmar in 1387 under the name of her grand-nephew and adopted son, Eric of Pomerania, but she retained the effective power.⁴

4

(Ref. 90)

DENMARK

The successful reign of Eric Menved ended in 1320 by capitulation and Christopher II was elected, with limitations laid down by the nobility and clergy. In 1340 Christopher was driven from the throne by Gerhard, Count of Holstein. This was indicative of the dominance of the German Hansa towns in Danish politics at that time. From 1332 to 1340 Denmark was in a state of anarchy, with no king and actually ruled by German Counts from adjacent territories. The Scanian provinces across the sound placed themselves under the Swedish king, Magnus Smek, as a separate province. But then came Valdemar IV, the youngest son of Christopher, to take the throne as one of the greatest Danish kings. The Church was subordinated to the royal power and the nobles and towns were made to perform their military obligations as Valdemar reconquered the territories lost by his father, in wars with Sweden, Holstein and Schleswig. In 1361 he even took on the Hansa. Copenhagen was sacked but the Danes defeated the Hansa fleets in 1362 at Helsingborg.

Valdemar had been raised at the Imperial German court as a European man of fashion; his wife was a Schlesvig princess. Although not liked much by the Danes, he ruled efficiently. During his reign he sold Estonia to German nobles, then conquered the

Goths of Gotland, an island in the Baltic which was actually a part of Sweden although controlled by the Hanseatic League. The second war with the Hansa occurred from 1368 to 1370 and this time the League was supported by Sweden, Norway, Holstein, Mecklenburg and even by some of the Danish nobles. Badly defeated, Valdemar accepted the Peace of Stralsund which again made the Hansa supreme in the Baltic. Valdemar's grandson, Olaf, ruled from 1376, under the regency of his mother, Margaret, until his death in 1387 when Margaret became queen, ruling also in Norway and Sweden. (See map, page 726)

FINLAND

After 30 years of being the battle field for war between Sweden and Russia, in 1323 a boundary treaty was drawn up and solemnized and Finland became a true province of Sweden, remaining so for the next 500 years.

EASTERN EUROPE

SOUTHERN BALTIC AREA

Northern Estonia was sold by Denmark to German nobles of the Teutonic Knights, who were already pretty well distributed throughout that area. About two centuries of eastward migration of Germans, with the founding of such cities as Wismar, Rostock, Stralsund, Greifswald, Cammin and Kolberg had resulted in the formation of the Hanseatic League in 1358. The bulk of the peasantry in the Baltic States retained their Finno-Ugrian character and there was not any actual military conquest except in Prussia. (Ref. [91](#)) In this and the next century the northern seas swarmed with herring and the Hanseatic League (with some strong competition from the Dutch) tended to dominate the commerce. Herring has to be salted within 24 hours of the catch and so this was often done at sea with salt imported from the south. The same chemical allowed cabbage to be preserved through the winter and the Baltic lands had a frontier boom, sending timber and grain to the Low Countries. As in most of Europe, however, the Black Death came on the scene in 1350. (Ref. [92](#), [93](#), [94](#))

Early in the century Poland withdrew from a previous short-term Bohemian association and in spite of pressure by the German Knights on the west and north and by Lithuania on the east,

Vladislav united Poland into a coherent kingdom with a capital at Cracow. Casimir III, called the Great, continued as a fine administrator, indulging in some territorial exchanges and founding the University of Cracow. In both this and the next century, Poland's internal strife was perpetually between kings attempting unification and nobles trying to establish more of an oligarchy type of government. Externally Poland pushed alternately against the Teutonic Knights northward, trying to get to the Baltic, and southeast toward the Black Sea. As a result of a dynastic agreement in 1370, Louis of Hungary became the Polish king and reigned until his death about 1382. The Poles then accepted Louis' younger daughter, Jadwiga, and married her to Jagiello of Lithuania, at which time they separated from Hungary. Beginning in this century the Poles used their rivers for transportation of great rafts carrying wood to the Baltic Sea. Like other European medieval cities, Prague was a walled, self-contained unit, but occasionally it was necessary to move the walls to allow for growth. (Ref. [95](#))

NOTE: Insert Map 74. Lithuania and Poland 13th-14th Centuries

Lithuania was the largest territorial state of 14th century Europe and Gedymin (1316- 1341) and Olgierd (1345-1377) of the Gedimimas family were the real founders of that nation. Blocked by the Germans on the Baltic, they took advantage of the weakness of the Russian principalities to extend control to the east and south by acquiring Polotsk, Minsk and the middle Dnieper region, with Vilno as the capital of the state. Several times Olgierd advanced to the very outskirts of Moscow and he extended his domains to the Black Sea, where he defeated the resident Tatars, re-establishing an extensive realm that had been occupied in prehistoric times by the Baltic Galindas. The Lithuanians were people that had originated in the upper Dnieper basin and mixed with Lappons, who had been pushed south by the Baltic Finns. At the end of the century Lithuania was ruled by Jagiello, a pagan. When he married the Polish princess Jadwiga, as noted above, she converted him to Christianity and he then took the name Valdislav II. This marriage united Poland and Lithuania into a giant Slavic kingdom in 1385. The Polish-Lithuanian link was always loose, however, for several

reasons not the least of which was that Poland was Catholic and Lithuania was chiefly Orthodox. In addition, they tended to pull in opposite directions, with the Poles chiefly concerned with the inroad of the Germans while the Lithuanians expanded along the Black Sea, hoping to exploit the decline of the Golden Horde. The latter were still tough enough, nevertheless, to defeat the Lithuanians in 1399 and close off their Black Sea outlet. (Ref. [96](#), [97](#), [98](#), [99](#)) (See map, page 726, also)

RUSSIA (See map in RUSSIA section in 19th century)

Russia did not exist as a nation at this time. The western-most territory was dependent to Lithuania; the north had a variety of independent city-states, including from north to south the Principates of Novgorod, Moscow and Ryazan. The east, including all the territory north of the Caspian, some east of the Caspian, all north of the Black Sea in a diagonal line running northeast - all this was the Khanate of the Golden Horde with its Mongol-Turk marauder occupants. It was noted in the last chapter that in all probability the plague was brought to the Euro-Asian steppes from the southeast of Asia, then by the Mongols to the Crimea, from whence it spread to all of Europe. In 1347 the city of Caffa (now Feodosiya) was under siege by the Tartars when they suddenly began dying off with plague. The living Mongols catapulted their dead companions into the city and as the Christian defenders started home, nearly all died at sea. It was the survivors that started the epidemic in Italy that soon spread to the entire continent. (Ref. [100](#), [101](#), [102](#))

Novgorod was an important city of the Hanseatic League with a population in this century of about 400,000, a high rate of literacy and a thriving economy. In the Ukraine the old Scythian population, mixed with Slav and some Mongol blood, reverted to a nomadic life and became the Christian Cossacks, forming somewhat of a buffer against the Tartars. The general population shift, however, was northward. In 1318 the Yarlik (charter) given by the Golden Horde to a north Russian subaltern, passed on to Prince Yuri of Moscow and then to Ivan of Moscow, who also brought the Church Metropolitan to that city. The Russians of the era were very pious, monasteries were numerous and the Patriarch Alexis was virtually the ruler of the Russian people from 1354 to 1370 as the church was the life and culture of all. In mid-century Ivan II of

Moscow refused to pay tax to the Mongols and the latter retaliated by raiding and massacring some 24,000 people and burning the city of Moscow. After this, however, the Mongol hold on Russia gradually weakened and in the great battle of Kulikovo, Dmitri Donskoi (meaning "of the Don"), then ruler of Moscovy, defeated the Tartar army in 1380 for the first time. Lithuanian armies, which were supposed to help the Mongols, did not arrive on time and probably related to this defeat is the fact that in the same year the Golden Horde was conquered by the White Horde from the east, which then migrated into its territories, although in the West all were still known by the former name. The Mongol-Turks were still not completely destroyed, however, and lived to attack Moscow again. (Ref. [103](#), [104](#))

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2. Rather than a continuous affair, the Hundred Years War was actually a series of intermittent wars

Europe: A.D. 1401 to 1500

EUROPE

At 1401 there was no dominant state in Europe. Germany and Italy were fragmented and the eastern empires of Casimir IV of Poland and Corvinus of Hungary developed late in the century and even then were ephemeral. The Iberian Peninsula had civil war and France had the Burgundians and Armagnacs feuding. Prolonged climate deterioration began about 1450, starting the "Little Ice Age", which lasted up to the first of the 19th century. (Ref. 1, 2) In spite of all this, after about 1450 Europe began to recover from the prolonged disasters and deficiencies of the previous 100 years. (Ref. 3)

Slavery had almost ceased in Europe until Portugal revived the custom in the latter half of the century, with the blacks from Africa. (Ref. 4) Movable type printing gradually came into use so that by 1500 some 236 towns in Europe had their own print shops (11). As Braudel (Ref. 5) states, the printing press expanded and invigorated everything. For centuries there had been two different European navies - the Mediterranean and the northern - but with increased trade and intermingling, the clinker construction and centerline rudder of the northern ships began to appear in the Mediterranean, while the southern lanteen rig went north and Europe began to emerge more as a single civilization. Vehicles with a moveable front axle, first used in gun carriages, were only employed after about 1470. As populations increased and artillery made their old walls useless, 15th century towns began to face serious problems. New, wide ramparts filled with earth (and thus hardly movable) had to be constructed and then large open spaces in front of these fortifications were necessary, eliminating gardens and trees. (Ref. 6)

Methods of exchange of goods had changed considerably by this century. Essentially only towns (or very large villages) now had markets. The western town controlled everything and the market, held usually once or twice a week, was one of its chief mechanisms. The surrounding countryside needed time to produce and collect goods and then divert some individuals, usually women, to sell the produce. On the seas, ships had increased enormously in size and were no longer individually owned, as shares were sold. The money market moved towards Holland and later London. (Ref. 7)

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

Venice continued her domination of most of the Mediterranean and added the island of Cyprus to her possessions in this century. (Ref. 8) The exception was Rhodes, which remained under control of the Knights Hospitallers.

GREECE

Early in the century Greece was divided between Ottomans, Venice, some Latin States and a small area still belonging to Byzantium. By late century all had been pushed out by the Ottoman Turks except for a few coastal islands which were still controlled by Venice. In the next century or two many Greek men actually functioned as Ottoman generals and officials. (Ref. 9)

UPPER BALKANS

Early on the bulk of the Balkans were under Turkish domination with the exceptions of Romania, which was a part of Hungary, and the Principality of Moldavia. Albania was taken by the Ottomans in 1430 and by 1436 the entire peninsula was Turkish. Their attempted invasion of Hungary began in 1439. Merchant Sicilians (Ragusans) were the chief westerners to penetrate this Balkan Turkish territory. (Ref. 10)

ITALY (See maps on pages 704 and 711)

Italy remained as a group of states, including the Venetian Republic, Florence, the Papal States, Genoa and Corsica, Sicily under Spanish Aragon control, the Kingdom of Naples¹, and finally the German Empire which was dominant in the very north. Of all

these, Venice was probably the most active, annexing much of the north Italian plain, giving her not only agricultural land of her own, but a direct route to Germany and guaranteeing her grain supply. (Ref. 11) Spices coming through Venice were in ever greater demand because they could disguise rancidity in food, reduce saltiness and give some character to otherwise insipid, dried edibles. At one time pepper was as negotiable as silver for currency in Europe. Venice imported 2,500 tons of pepper and ginger and almost as much again of other spices. The Venetian control of this trade actually was a great stimulus to the Portuguese to open up a sea route to India and was a factor in Spain's discovery of America. (Ref. 12, 13) This city was also the incoming port for cotton in the form of yarn or bales, receiving loads twice a year from Syria in 1,000 ton ships². Venice was one of the first city-states to have a completely mercenary land army, although they had long used the same practice at sea. (Ref. 14, 15)

In contrast, it was in Florence that the Golden Age of the Renaissance started, in the last half of the century. Although plague continued to cause extensive loss of life in Italy as a whole, with a continued fall of the population of most Italian cities and with a decline in industrial and agricultural production and woolen cloth, still Florence seemed to prosper. The Florentine wool trade was a combination of activities in both town and country. In fact Gino Barbieri recently commented³: "The Italian renaissance is really all about wool!" Controlled by the Medici family, Florence bought Pisa, gaining direct access to the sea and it then invited learned Greeks to the community (1439). This initiated a period of great art and secondarily a considerable looseness in living and morals. The house of a merchant in Tuscany about 1400 might have had 12 to 14 rooms with a tile roof and glass windows, possibly a fireplace and wall hangings of French serge or linen or carpet. Floor carpeting, however, was rare. The dining room would have a long table with only one communal drinking glass and no forks (except for serving) and few spoons. Guests would bring their own knives. Benches were far more common than chairs. As everything was made of wood, fires were common and catastrophic, as in all of Europe.

As a result of the transfer of the church from a religious organization to, for all intents and purposes, a secular political power, the Italian middle and upper classes became the most

skeptical of all European peoples. Although they paid lip service to the Catholic faith, their ideas and writings became more humanistic. (Ref. 19, 20) The papal schisms of this century undoubtedly had something to do with this shift of loyalties. Water was beginning to be a troublesome factor in a great city such as Rome and one of the few accomplishments of Pope Martin V after the first papal schism was to restore one of the demolished great Roman aqueducts. (Ref. 21)

NOTE: Insert Map 45. Renaissance Italy

Among the great artists of the era were Botticelli, Leonardo Da Vinci, Raphael and Michelangelo. Leonardo was one of the greatest geniuses of all time, a brilliant, multi-faceted, secretive man, born as an illegitimate son to a notary, basically left-handed, but apparently somewhat ambidextrous and who of ten wrote in mirror image. Known primarily as an artist and sculptor, he was perhaps even more interested in science, including human anatomy, comparative anatomy, botany, geology, physiology, mechanical and hydraulic engineering, astronomy and military engineering. In addition he was a philosopher, of ten writing in paraphrase in a method very reminiscent of the New Testament and he even did some work in music, mathematics and, of course, architecture. He has been called an homosexual, but in the large, beautiful text of his work, called simply "Leonardo da Vinci" (Ref. 22), the only reference by any of the biographers to his personal, emotional life was the statement by Giorgio Nicodemi: "There is no trace in his life of women, who may have smiled at him or been his companions."⁴ Leonardo was a contemporary of Columbus and Copernicus and helped to give deeper insight into the works of Michelangelo and Raphael. At one time or another he lived and worked in most of the city-states of Italy which were of ten at war with one another, although he was basically a Florentine. (Ref. 23, 24)

Science could make but moderate advances in this period and medicine made more progress than most, but even the most advanced anatomists and physicians of this age had barely reached, by 1500, the knowledge possessed by Hippocrates, Galen and Soranus between 450 B.C. and A.D. 200. Syphilis became rampant in Italy in 1493 and 1494 and the argument still goes on to whether

or not this was brought from America. Celsus' old book *De Medicina* was one of the first medical texts ever printed (Florence, 1478). In addition, in 1487 Mondino de Luzzi's treatise on dissection techniques, called *Anathomia* was published at Padua and used as a standard text through forty editions, until the time of Vesalius. The treatise was actually written at the University of Bologna in 1316. (Ref. 25, 26)

Some new navigable canals and irrigation systems were built during this period. The first Great War between the Turks and Venice (1463-1479) developed over interference with trade and the Turkish threat to Albanian and Greek coastal possessions of Venice. In 1480 Naples, too, was sacked by Turks and at the end of the century almost of Italy, except Naples, came under French control as Charles VIII invaded in 1494. For the first time, artillery became a major element in European warfare in this campaign. It became apparent then that the community financed, local mercenary armies of the city-states of Italy could not stop intervention from outside the peninsula. Florence and the Papal States yielded readily to the French and even a fortress of the border of the Kingdom of Naples fell in 8 hours of bombardment by the new French guns, as its wall were reduced to rubble. (Ref. 27)

In addition to these military and political troubles, in 1498 the Portuguese rounded the Cape of Good Hope, establishing a waterway to the East, bypassing the Mediterranean and diverting world trade away from this ancient trade route. But there was one redeeming feature that saved Italy at that time. The rich of Europe forsake gold and silver fabrics for silk and since Italy was one of the few silk manufacturing centers of the continent, this brought a last wave of prosperity to the peninsula, to last about 100 years. Sicily was already growing sugar cane, but in spite of the intervention of Genoese capitalism, the sugar works were money losing ventures. (Ref. 28)

CENTRAL EUROPE

Gold and silver mines flourished again in central Europe from 1470 on for about 70 years. Mining camps were worked by free men in the Alps, the Carpathians and the Erz Gebirge on the border between Czechoslovakia and Germany. (Ref. 29)

GERMANY (See map in section on PRUSSIA, in 18th century)

15th century Germany will be described in some detail so that the reader may understand the political and social groundwork on which the Reformation was to burst in full bloom in the next century. The people were the healthiest, strongest, cleanest and most vital and exuberant in Europe. They were actually too vigorous and prosperous to tolerate any longer the manacle of feudalism or the exactions of Rome. The German Church was rich but much of its money continually drained into Rome and a revolutionary spirit of hatred for the Church and the clergy had taken hold of the masses in various parts of the country. In the last half of the century all classes in Germany prospered and with the exception of knights and the lower nobility, although there were sporadic agrarian revolts. The German financiers became prominent, particularly at Augsburg, Bavaria and in particular we must mention the Fuggers family. These and other south German bankers had gained greatly from the mining boom in Germany and Bohemia. (Ref. 30) This era of the Fuggers established a center of wealth that Europe had not seen since the millionaires of Imperial Rome. The Fuggers soon moved the center of their operations to Antwerp and this closeness to northern Germany allowed that portion of the country to become divorced from the Italian economy and thus strong enough to protect Luther in the next century. Southern Germany, tied to the Italian economy, remained Catholic. The relative abundance of gold in the last years of the century in Europe paradoxically "launched" the silver mines of Germany. As one of these precious metals becomes more commonplace, the other becomes more valuable. (Ref. 31) (See map on page 711)

By 1460 a hundred small cities had won charters of practical freedom from their lay or church superiors. Cologne, with 20,000 people, was the largest town in Germany, functioning as a trade center at the intersection of two Rhine waterways and important overland trade routes. There were still ten times more rural than urban dwellers in the country, although there were about 3,000 towns of all sizes, each acting as a relay point 5 to 8 hours apart on trade routes. (Ref. 32) In each principality the three estates - nobles, clergy and commons - met occasionally in a territorial diet that exercised some restraint on the purse strings. Then there was an over-all Reichstag and a Diet of Electors to choose a king, who

was then made emperor by the pope. Early in the century, Sigismund of Bohemia (and then also king of Hungary) was the Holy Roman Emperor, but then the Habsburgs of Austria came to power with Albert II in 1438 and after that all the emperors were Habsburgs and thus from outside of Germany, itself. It was not great wonder, then, that Frederick III, in league with the popes, aggravated tension between the popes and the German people and further set the stage for the Reformation. During his reign, the areas of Schleswig-Holstein, Bohemia, Austria and Hungary detached themselves from the German dominion.

With Gutenberg's European⁵ invention of the movable type printing press in 1454, there was a great increase in books for all the people. This was one of the things which helped to terminate the Middle Ages. There were 20 German translations of the Bible before Luther and a scholar, Johannes Reuchlin, put the study of the Old Testament on a scientific basis, so that it played a big part in the coming Reformation. Reuchlin was a humanist; Albrecht Durer was an artist of the period; Johann Muller was a peak figure in mathematics and astronomy, devoting an entire book to trigonometry, describing Halley's comet, making longitude and latitude calculations and establishing himself as a stimulating teacher. Sculptors worked in bronze and wood. Lucas Cranach was another portrait painter of the calibre of Durer and Nicholas (Krebs) of Cusa (1401-1464) was one of the great philosophers of Germany. Some of his ideas live on in the philosophical system of Leibniz. Regular postal service was established by the end of this century. German universities had increased to 16.

After 1400 the eastward political drive was carried on, not by the empire, but by two quasi-independent states, Austria and Brandenburg-Prussia, or more properly by the two dynasties - Habsburgs and Hohenzollerns. The Emperor Sigismund gave the march of Brandenburg to Frederick of the Hohenzollern⁶ family in 1417. Through conquests, purchases and marriages, this territory continued to grow. (Ref. [33](#)) In Bavaria, Duke Albert IV again united the area in the last half of the century and introduced the law of primogeniture, thus allowing Bavaria to enter the Reformation period strengthened and strongly Catholic. The Habsburg Maximilian I (1493-1519) was the first and only Renaissance king of Germany. Through his wife's inheritance (Mary was heiress to Charles the Bold of Burgundy) he acquired the

Netherlands. He was well educated, patronized the arts and sciences and aspired to a writer. He was adored by the middle classes, even though the princes were less than enthusiastic. Germany was still not a state, but under Maximilian it might have been called a nation. Eventually, however, both the emperor and the territorial lords began to hire mercenary armies and thus initiated a military plague. After 1497, Jews were expelled from many German cities.

AUSTRIA

Upon reading the paragraphs above it is apparent that it is difficult to separate the history of Austria from Germany at this period, when the Habsburgs were also emperors of all Germany. When Frederick III was crowned Holy Roman Emperor in 1452 he soon made Austria an archduchy. In 1474 the Habsburgs acquired the whole of Vorarlberg (on the border of Switzerland) and then in 1477 the Netherlands by marriage, as noted in the paragraph above. The inhabitants of Austria are, of course, basically Germanic, and the remarks about the German people above, can be easily translated to the Austrian populace. The only really negative feature of the century occurred in 1485, when King Matthias of Hungary occupied Vienna and stayed there for 5 years, actually assimilating Lower Austria and Syria into a temporary Hungarian Empire.

HUNGARY

Hungary, along with the Balkans and Poland, sent cattle on the hoof to Germany and Venice. Sigismund (actually Bohemian) was King of Hungary as the century opened and soon became Holy Roman Emperor. It was under his reign that a peasant revolt broke out over tithe money in the Transylvania region (now a part of Romania). This resulted in an institution called "The Union of the Three Nations" under which the nobles of Transylvania, along with the Saxons and the Szekels, formed a league for mutual defense against all except the king. Sigismund was followed by a young Polish king, Vladislav V, who was called Ulaszlo by the Hungarians.

At that time, Janos Hunyadi, son of a lesser noble of Vlach origin, who had been rapidly promoted in the army, defeated the Turks in Transylvania in 1442 and then, with King Vladislav V, undertook a Balkan campaign where eventually they were disastrously defeated and the king was killed. The heir was yet a baby so his uncle, Emperor Frederick, left Hunyadi in charge of

Hungary, as regent. In 1456 the regent fought and defeated the Turks beyond Belgrade and had no further trouble with them for many years. The young king died soon after Hunyadi's death and there ensued a scramble for the throne. Finally, the nobles elected Hunyadi's son, Matyas (Matthias or Mathew). He was a true Renaissance prince, who fought 4 wars with the German Emperor Frederick III, finally gaining Lower Austria and Styria for his domains. This first Austro-Hungarian Empire was thus Hungarian. When Matyas died with no heir, the Hungarians took Vladislav Jagiella, another Bohemian king, as their own. Lower Austria was then given back to the current emperor, Maximilian. (Ref. 35)

CZECHOSLOVAKIA

The phenomenon of earning wages by hiring out as a laborer was early seen in the mines of Bohemia. The considerable investment required for equipment for deep mines could be made only by merchants, who then paid men to do the work. (Ref. 36) As a source of energy, horizontal water wheels were still used in Bohemia at this time. (Ref. 37) We have seen in the paragraphs immediately above that there was a close association at this period, of Bohemia with Hungary.

As early as 1410 Germans and Czechs had clashed at the University of Prague over the papal schism and the German teachers and students had left and gone to Saxony, where they eventually founded the University of Leipsig. Under the reign of Wenceslaus IV, John Huss, a priest of Prague, began to preach the doctrines of Wycliff, challenging image worship, auricular confession, many ornate rites, indulgences and the existence of purgatory. The Church banished him and eventually burned him at the stake as an heretic, along with his friend and supporter, Jerome. The news of Huss' death caused the Bohemian Revolution of 1415 to 1436, in which the people denounced the death and declared that they would fight to defend the doctrines of Christ against the man-made decrees of the Church. They formulated the "Four Articles of Prague", as follows:

(1) Mass should be given in wine as well as wafer. (2) Simony should be punished. (3) The word of God should be preached rather than doctrines. (4) There should be an end to the extensive wealth of the clergy.

The Bohemian Revolution actually became the Hussite Wars,

which, in turn, became socialistic in character. The Germans in Bohemia wanted to remain faithful to the Roman Church and the Hussites made them their victims, with battles, massacres and persecutions. All elements of the later Luther Reformation appeared first in this Hussite Movement. Wenceslaus IV died in 1419 and Bohemia had no king for 17 years, during which time the Hussites were dominant. Eventually they began to argue among themselves, however, and broke up into various factions. The more radical wing formed the "Moravian Brethren" sect and in eastern Bohemia and Moravia the Moravian Brotherhood Church was formed in 1457. By 1500 there were 100,000 members, renouncing the authority of the Roman Church and dedicating themselves to the New Testament. This church still exists today. In the meantime there was peace in 1436 with compromises on the part of the Empire and the Church. This peace was apparently stimulated as the more conservative elements of the Hussites were shocked as some of the radicals formed communist groups. When the conservatives allied themselves with the orthodox Catholics again, the revolt was put down and Sigismund of Hungary, the son of Charles IV and a Bohemian, became king and then Holy Roman Emperor. Then came Albert II, an Habsburg and then Ladislav V of Hungary (Ladislav I in Bohemia), although actually George of Poděbrad ruled for him. On the death of Ladislav, George was elected king (1458), but in 1471 the crown reverted to the kings of Hungary, beginning with Matthias Corvinus. In 1485, at the treaty of Kutná Hora, the Catholics and the Hussites, then called Ultraquists, pledged 30 years of peace.

SWITZERLAND

The first half of the century was one of almost constant turmoil between the various cantons themselves and with the Holy Roman Empire. The Canton of Uri began expansion westward to get control of the passes into Italy, but the Swiss were driven out by the Duke of Savoy in 1413. From 1436 to 1450 there was civil war between Zurich and some of her neighbors over the succession to the domains of the Count of Toggenburg. Zurich allied itself with the German Emperor, who, in turn, called in the French, but they were all defeated by the soldiers of Schwyz and the French withdrew. The emperor made peace at Constance in 1446 and the cantons made their own peace by 1450. The general effect was to

strengthen the Confederacy, although the country was still allied to the empire. The Swiss cantons were suppliers of meat to Germany and northern Italy. Geneva re-instituted the great fair concept that had declined in Champagne in the previous century. (Ref. 38, 39)

But the Swiss still had wars to fight. From 1474 to 1477 there was the Great War against Charles the Bold of Burgundy, who had eyes on Alsace. The Swiss had great victories at Granson and Morat in 1476 and Nancy in 1477, squashing Charles' plans. It was after this that Swiss pikemen were in great demand in Europe as mercenaries. There was war with Milan in 1478 and even war again with the emperor in 1499 over some territories in the east. The Swiss had French financial help and by September, in the Treaty of Basel, the confederation became independent in fact, if not yet formally. (Ref. 40)

NOTE: Insert Map 46. Activities of the Medici and Fuggers in Western and Central

Europe c.1500

WESTERN EUROPE

Beginning in mid-century, western Europe started another population boom, this time to last for two centuries. It has been said that the founding fathers of the modern state were three western European leaders of this century - Henry VII of England, Louis XI of France and Ferdinand II of Spain.

SPAIN

The marriage of Juan I, of Castile and Eleanor of Aragon allowed these two provinces to become united, although at first they kept the monarchies separate. Ferdinand I of Castile became King of Aragon in 1410 but the union did not really become complete and final until the marriage of Ferdinand II and Isabella, in 1474. In the meantime, by 1450 there were 10,000,000 people in Spain, a mixture of Celts, Phoenicians, Carthaginians, Romans, Visigoths, Vandals, Arabs, Berbers and Jews. A state bank had opened in 1401 and marine insurance had been established in 1435. The Church was an inseparable ally of the state and took small account of the

pope in Italy. The king was head of the church and the people were devout. Moslems and Jews still made up 10% of the people. The Spanish Inquisition became cruel and money-mad under the Dominican leader, Torquemada and Spain was made into a unified State-church. For a short period, there followed a remarkable display of energy. Granada finally surrendered to the Christians in 1491.

The Genoese, Cristoforo Colombo, a giant of a man at six feet, when most virile men of that age were about five feet four, thought he could reach the spice islands of the east by sea by sailing westward, but the task of convincing Queen Isabella was not easy. Several factors were concerned in her final decision. Juan Perez, the Queen's confessor, pleaded for the trip; Granada had fallen, ending 700 years of warfare with the Moors; another Genoese, John Cabot, had already convinced Henry VII of England that the trip would be made sooner or later. (Ref. 41) Finally Luis de Santingel loaned Isabella the money for the glory of God and the Queen desperately needed to replenish her treasury, already depleted by those last campaigns against the Moors. The chance of a share of the spice trade from the Indies (since the Ottomans now had Constantinople and Athens, cutting off the old trade route) was the final argument. (Ref. 42) (Columbus' trips will be further detailed under Section VIII, AMERICA, this chapter). In 1492 in addition to Columbus' commission, the Spanish crowns issued the Edict of the Exile of the Jews, which led to massive emigrations and eventually slaughter. This wave of terror shook Spain to its foundations as perhaps 200,000 Jews were expelled. These people had been the real middle class of Castile - tax gatherers and state administrators, as well as high tax payers. The chief rabbi of Burgos was also the bishop there in 1415. In Seville the Bible had been read in Arabic for many generations. But strange tales about Jews drifted down from the rest of Europe and influenced the Spanish monarchs. The irony of the expulsion was that King Ferdinand, like most Spanish noblemen, had Jewish blood through his mother, Juana Enriquez⁷. At this same time slavery was commonplace in Spain. Rich families had as many as 50 - some Greeks, Russians, Albanians or Turks, bought at famous slave markets of Caffa on the Black Sea - but most were Negroes from Africa. (Ref. 43)

There were 2,700,000 sheep in Spain by 1467 and wool was the chief agricultural product, along with mutton, milk and cheese.

(Ref. 45) At the end of the century Spain had an epidemic of typhus, brought there in 1490 by soldiers who had been fighting in Cyprus. (Ref. 46) In addition, incidental to the celebrations upon the return of Columbus from his first voyage in 1493, a terrible epidemic of syphilis broke out. It was severe, rapid in progress and of ten fatal and within 4 or 5 years the disease "toured" Europe. (Ref. 47)

PORTUGAL

On the political front, Portugal finally made peace with Castile in 1411 and then started their expansion on the African mainland. Their luck was bad as the plague hit and then they suffered an overwhelming defeat at Tangiers in 1437. Alfonso V, who ruled from 1437 to 1481, was one-half Spanish. The nobles revolted against him at one time, but he did promote the Ordenacoes Affonsinas, the first Code of Portuguese Law, in 1466. It was an amalgam of Roman, Visigothic and customary law.

It was not only gold hunger but shortages of grain, fish and slaves to work the sugar plantations of Madiera that stimulated the Portuguese merchant marine of this century. They built fortresses on the Gold Coast of Africa in the 1480s and by the end of the century were bringing 700 kilograms of gold and 10,000 slaves to Lisbon every year. (Ref. 48)

In their initiation of the slave trade, the Portuguese had the blessings of the Catholic Church in that Pope Nicholas V had authorized them to "attack, subject and reduce to perpetual slavery the Saracens, pagans and other enemies of Christ southward from Capes Bajador and Non, including all the coast of Guinea."⁸ Of course, the black kings and merchants of the African coast were happy to trade slaves for European cloth, hardware, spirits or firearms.

NOTE: Insert Map 55. The Iberian Peninsula Towards The End of the 15th Century (1476)

Near the end of the century Joao II had to suppress another revolt by the nobles. When Portugal and Spain began to squabble over their overseas possessions in the new world, the Treaty of Tordesillas made a dividing line which was only more or less

subsequently observed. In 1497, the same year that Portugal either expelled the Jews or forcibly converted them, Vasco da Gama, using an Arab navigator, Arab maps and astronomy tables of the Jew, Abraham Zacuto, sailed around the southern tip of Africa to India and thus began the commercial supremacy of Portugal. Unfortunately Vasco lost more than half of his crew to scurvy on the journey. Navigational improvements were pioneered through Prince Dom Enrique (Henry), the Navigator, son of Joao II and he brought mathematicians and astronomers, who made instruments and trigonometric tables to measure latitude. These improvements also resulted in the discovery and peopling of the Azores as well as the African coast. (Ref. [49](#))

FRANCE

The Hundred Years War continued on into this century. Henry V of England, joined by the ambitious Duke of Burgundy, invaded France in 1415, hoping to seize the French throne. He failed in this but he did manage to take a portion of the country, including Paris, for a time, following the battle of Agincourt, when the English, with 6,000 archers, 1,000 men-at-arms and a few thousand foot soldiers defeated 25,000 French, still wearing heavy armor. France was actually in ruins, with poverty, amorality, filth, cruelty, treachery and corruption endemic. This deterioration had been going on since the last half of the preceding century. In this recession, market buildings fell into ruins and even the great Halles market place in Paris declined. (Ref. [50](#)) Nevertheless, the French King Charles VII set up a new government south of the Loire and after the stimulation of the epic of Joan D'Arc (originally Jeanne Darc), in 1429, the tide turned. Joan, a religious mystic, who led the defeated French troops, was burned at the stake by the British as a witch, but to Catholic France she was a guiding light. In 1435 the Duke of Burgundy switched sides, transferring his support to France and with the help of cannon the expulsion of the English soon followed. First Normandy was reconquered (1440), then Gascony and some adjacent areas in the 1440s, Burgundy in 1477, Anjou in 1481 and Brittany in 1491. It was the fall of Bordeaux in 1453 that, in effect, ended the Hundred Years war.

Thus the kingdom of France emerged on the European map between 1450 and 1490, centralized and capable of sustaining a professional standing army of about 25,000 men constantly, with

about 50,000 more reserves available if needed. In addition- they had heavy artillery pieces which could demolish castle walls in a matter of hours, thanks to a century of rapid improvements in cannon design and manufacture. In this rebuilding Charles VII was helped immeasurably by the financier, Jacques Coeur, one of the copper kings. It should be noted, however, that in 1479 Louis XI disbanded his French infantry forces and made a contract with Swiss mercenary pikemen. The Swiss propped up the aristocratic-bureaucratic regime for the next 300 years. (Ref. [51](#), [52](#), [53](#))

NOTE: Insert Map 51. England and France in 1429

NOTE: Insert Map France in A.D. 1453

Under the strange King Louis XI in the last of the century, the government of France became the most powerful in Latin Christendom but the people themselves became poorer. It was Louis' son, Charles VIII, who invaded Italy and held a part of it for a short period. Lyons became the most famous "fair" center, located on the great trade route through the Rhone Valley and it prospered accordingly, developing its own stock exchange in 1462. Toulouse followed with one in 1469. (Ref. [54](#))

In the south of France, as in Spain, tens of thousands of sheep were moved annually from the mountains of Provence to winter pasture at Arles. Also in Provence, communal herds of pigs were driven across country to fatten on the acorns of Vauduse and Albion.

The development of all this over a period of many, many years had helped the food situation throughout France and there were only six general famines between 1200 and 1500, a marked improvement from earlier centuries. (Ref. [55](#)) The modern French language appeared fully complete in the works of Francois Villon in this century and Jean Froissart was another great writer of the period. (Ref. [56](#), [57](#), [58](#)) But it is easy to overestimate the extent of true civilization in Europe in past centuries. The whole continent, from the Urals to Gibraltar was the domain of wolves and bears. In 1420 wolf packs entered Paris and they were there again in 1438, attacking people. (Ref. [59](#))

THE NETHERLANDS AND BELGIUM

This area remained more or less unscathed by the Hundred Years War. In the first half of the century, present day Holland and Belgium were a part of Burgundy and ruled by the Burgundy dukes, essentially as a separate entity. After the duke, Charles the Bold, was killed in 1477, his daughter Mary saved almost all of the Netherlands and Flanders by marrying the Habsburg head and getting his help against France. In the process Burgundy became part of the territories of the Holy Roman emperors Maximilian I and later Charles V. Trade with England became very important to both areas. The Dutch now seized control of the herring industry in the North Sea, the English having granted them the right to seine in their waters and the rise of Amsterdam was made possible by this herring industry. But about 1500 the herring disappeared, whether because of a change in the currents, depredations of larger fish or disease, is not known⁹. The results were far flung and many. The scarcity of fish drove up the price and fishing fleets were dispersed even to the distant waters of Newfoundland, by Breton fishermen. (Ref. 60)

In contrast to some parts of Europe, however, meat was commonly eaten in the Netherlands, even in times of famine. Windmills were particularly useful in this country for driving bucket chains, which drained water from the soil and poured it into canals, thus helping in the reclamation of land. The permanent westerly winds from the Atlantic to the Baltic made these mills more efficient than those of some countries. (Ref. 62)

Bruges in Belgium was one of the four great trading posts of the Hansa, along with Tyskebrugge in Bergen (timber and fish), Peterhof in Novgorod (furs), Steelyard in London (wool and cloth). The first north European stock exchange developed in Bruges in 1409.

At the end of the century, however, Bruges' harbor silted up and the cloth center shifted to Antwerp on the Scheldt and that city developed its own exchange in 1460. (Ref. 63, 64) Coal was used throughout the Low Countries and was exported, but almost all of their salt came from the mouth of the Loire. (Ref. 65)

As in Bohemia, various "heretical" groups made their appearances in the Lowlands at this time, but more of this later. Many great artists developed, including Herbert and Jan Van Eyck and Roger de la Pasture, also known as Rogier Van der Weyden. Important to note, too, is the birth in this century of Erasmus, skeptic, satirist

and humanist who was another forerunner of the Reformation and about whom we shall have much more in the discussion of ENGLAND, in the next century. (Ref. 66)

BRITISH ISLES

ENGLAND

Among the great powers rising on the Atlantic seaboard, England came last. From about 1350 to 1450 the English had had a drastic population reduction from the Black Death, prolonged economic stagnation and sporadic outbursts of the Hundred Years War against France. As noted above, Henry V took most of France for a short period and his death may have saved that continental country, but he almost ruined England because the treasury sank into irremedial debt. Henry VI went mad and there followed the famous War of the Roses, lasting from 1454 to 1485, in which the nobles of the House of York battled those of the House of Lancaster for the throne. It was a suicide of the Anglo-Norman aristocracy and England was left impoverished, destitute and desolate, as the

Lancastrians were scattered or destroyed and many of their nobles decapitated¹⁰. The victorious Yorkists entered London with King Edward IV, who had already resolved to have as little to do with Parliament as possible. In 1475 he made a token invasion of France through Calais, the one remaining English foothold on the continent, but he soon stopped to parley with Louis XI and a settlement was struck whereby Edward obtained a lump sum of 75,000 crowns and a yearly payment of 50,000. This was almost enough to keep him independent of Parliament and let him live the life of ease, which he so desired.

Some would say that his debauchery and promiscuity caused his early death in 1483, but actually he may well have died of appendicitis. His son Edward V, the apparent heir, was immediately imprisoned and his uncle took over the crown as Richard III, claiming that the boy Edward was a bastard and not entitled to succeed. But Richard, himself, ended up without an heir and the rival claimant to the throne became Henry Tudor, Earl of Richmond, a Welshman, who had been forced to flee to Brittany many years before. Now both Yorkists and Lancasters left England to join him as he prepared an expedition at the mouth of the Seine. In late summer of 1485, Richmond, with his English supporters and a body of French troops landed at Milford Haven, near the

southwestern tip of Wales. The Welsh were more than happy to have the prospect of having one of their own on the throne of England and many Welsh gentry joined his forces so that he had about 5,000 men as he moved through Shrewsbury and Stafford. In the last of what should be called the "nobility wars", on Bosworth Field, Richard III was slain and Henry Tudor (Tydder) became Henry VII, a wise, sad, careful monarch, who reformed the administration, centralized the government and finally left the state respected, orderly, solvent, united and at peace. Henry's claim to the throne was through his mother, from John of Gaunt, founder of the House of Lancaster. He married Elizabeth, a princess of the House of York and thus united the two rival houses. When his first son, Arthur, who had married Catharine of Aragon, died, Henry arranged for his second son Henry (later Henry VIII) to marry the widow, thus strengthening the alliance with Spain. (Ref. [69](#), [70](#))

During this 15th century England experienced a so-called "agrarian revolution", which was a transition from grain to sheep raising. This, in itself, caused a social and economic catastrophe, with the small farmer eliminated, the flatlands depopulated and the food supply decreased so that heavy imports were necessary. The country did experience a mild renaissance in the last quarter of the century, however, as she began to build her own merchant ships and to export coal from Northumberland. By 1500 she was ruling the North Sea trade. Giovanni Caboto, sailing under an English charter and the Anglicized name, John Cabot, discovered Newfoundland and explored the American coastline from Labrador to Delaware, just a few years after Columbus' initial trip to the new world.

The people of England were a vigorous stock - coarse, profane and perhaps a touch cruel. Probably only 40% could read. As if the Black Death were not enough, in 1485 a new disease, characterized by severe sweating, appeared in England and was called *sudor anglicus* or the "sweating sickness". Death could occur within days, particularly in strong men. Paradoxically old women and children were spared. After appearing at intervals into the next century in England and in some outbreaks in northern Europe a little later, the disease, whatever it was, vanished forever. (Ref. [71](#), [72](#), [73](#))

Two men who were to play most important parts in the history of England were born near the end of this century. Thomas Wolsey was the son of an Ipswich butcher, who had been in some trouble

with the law. Thomas enrolled in Oxford University at the age of 12 (instead of the usual 14 years) and 40 years later was to become the most powerful man in western Europe. Thomas More's father was a London barrister and his grandfather had been a butler. He too attended Oxford, beginning at the then usual age of 14. He was a good student, excelling in Latin and Greek and eventually ended up in the study of law. We shall hear much more of both these men in the next century. (Ref. [74](#))

In the last chapter we mentioned the early protestations against the organized church by John Wycliffe. As his followers waned, the church came back into power. Some Lollards persisted, however, and finally presented a statement of principles to Parliament opposing clerical celibacy, transubstantiation, image worship, necessity of confession to priests, ceremonies of exorcism, worship of saints, etc. Some of these men were executed for heresy, probably under the statute "de Heretico Comburendo" which had been passed at the beginning of the century. In this period under discussion, the king's government was carried on chiefly by priests. The Lord Chancellor was almost always a priest and about half the Privy Council (similar to a modern cabinet) were bishops. This link between the Church and the government service was one of the reasons for the corruption in the Church that was apparent by the end of this century. Nearly every priest was corrupt and this was generally accepted as normal. The priesthood appealed to practical men rather than to spiritual individuals, who usually preferred the monasteries. The word "religious" was used exclusively to refer to monks and nuns. The priests were called the "secular clergy", but it was they who alone could grant licences, dispensations, absolution after confession and perform the miracle of transforming bread and wine into the Body and Blood of Christ at Mass. By this 15th century priests no longer took a vow of celibacy, although most novice monks and nuns did. (Ref. [75](#))

At the very end of the century Henry VII put down an insurrection in Cornwall, where the people had risen to protest taxes imposed for defense against Scottish invasion forces. (Ref. [76](#)) Some remarks about the legal system in England are in order. There was a good deal of antagonism between the barristers and the priests of the civil service. The latter had usually studied canon law and also the old Roman civil law, codified by Justinian in the 6th century. Although parts of the Roman law had survived in most of

western Europe and even in Scotland, the English common law had developed along different lines. By this 15th century torture was freely used in political cases brought before the Privy Council, where the civilians, mostly priests, conducted the trials. (Ref. 77) Of incidental interest is the fact that construction of Westminster Abbey was under way as the century ended. (Ref. 78)

SCOTLAND

The infant heir, James I, while going to France for safety, was taken prisoner en route by the English and on the almost immediate death thereafter of Robert II, the regent, Albany, actually ruled Scotland in an uneasy peace that allowed some recovery of prosperity amid good harvests. The Scottish church achieved opulence and the ecclesiastical income equaled all other incomes combined.

The ordinary Scottish man living in the last half of the century had a rough life, but in a warm, human society. The crown laid down all sorts of rules - such as no drinking in taverns after nine o'clock, no staying with friends when traveling (i.e. must stay in taverns), every man with a plow and 8 oxen was to plant a designated amount of wheat, peas and beans, commoner women could not wear clothes of silk, scarlet gowns or trimming of martin fur and must have their heads covered. The peasant with his kin usually worked 30 acres with a wooden plow and oxen and lived in a turf house, such acreage "leased" to him for five years. At the end of the century, James IV did give his serfs the land in fee, however, and encouraged his barons to do likewise. The great burghs, started by the merchants, were becoming cities, with vermin, wandering dogs and free-running swine, fish stalls, general squalor and plenty of beggars. Each man kept horse and weapons ready to be available for war within 12 hours of the first beacon flare. John Major, an educated historian of the times, described two nations in Scotland - the wild Scots of the mountains and the householding Scots of the south, both-quarrelsome and contentious, with the "lairds" thinking of nothing else but fighting. The two "peoples" had different tongues and hated each other. The land was rich in fish, wildfowl, deer and immense quantities of salmon and herring were exported to France, Flanders and England. (Ref. 79)

The last two-thirds of the century was a bloody era with the ransomed James I, James II and III all meeting violent deaths and the nobles did their share of killing each other.

"For eight years Douglasses and Hepburns, Stewarts, Ruthvens and Crawfords, Kennedys and Ogilivies fought with or against each other on both sides of the Forth."¹¹ James IV married Margaret Tudor, sister of the future King Henry VIII of England and became the best loved of the Stewarts. A Renaissance prince, it was he who made his Parliament pass the first compulsory education act in 1496. Scotland acquired the Orkneys and the Shetlands from Denmark in 1472. After 1487 the bishops and abbots were nominated by the king, a feature which led to a deterioration of the already corrupt clergy.

IRELAND

Ireland continued to be dominated by England although by 1500 English influence had waned to be confined to a small border area while the remainder of the country drifted back to a squalid freedom. (Ref. 81)

WALES

For centuries the Welsh had seethed just under the point of open rebellion against the English and in 1405, with the help of French troops Owen Glendower actually opened fighting. It was 1415 before this rebellion was finally ended and Glendower pardoned. (Ref. 82) Even so, it was not until 1485, when the Welsh Henry Tydder (Tudor) became Henry VII of England, that the Welsh began to live peaceably with their English neighbors. (Please see page 720)

Scandinavia

NORWAY, SWEDEN, AND DENMARK

At the death of Queen Margaret in 1412, her grandnephew Eric, in whose name she had actually ruled, allowed the Union of Calmar, which had loosely bound the three nations, to become in essence a Danish Empire. He introduced the "Sound Dues", charging all ships going to and from the Baltic through the Danish sound and built castles (including the famous Kronborg castle at Helsingor – English "Elsinore") along both sides of the narrow strait to protect the area. The dues produced enormous sums of money for Denmark in the next several years, but they also produced immense political troubles. All of the Scandinavian countries were protective of their

coastal waters. The city of Bergen in Norway was completely under the control of the Hanseatic League, but when some of their fishermen caught some English poaching in the area, they bound the English and threw them overboard to drown.

In Sweden a peasant uprising, initiated by Englebrecht Engelbrechtson against the king, was backed by the nobles. The revolt spread to Norway, with strong feelings developed against the somewhat autocratic Eric. When the nobles' pressure reached its height, Eric abdicated and went to Gotland. The aristocracy of all three countries then chose his nephew, Christopher of Bavaria, as his successor. He died in 1448 without a son and Count Christian of Oldenburg, distantly related to the old Danish royal line, was chosen and accepted by Norway and Denmark. But Sweden named Karl Knutsson as its king. (English texts list him as Charles VIII.) Christian promptly attacked the Swedes but lost at the battle of Brunke Hill, in 1471. As a dowry for his daughter Margaret, who married King James III of Scotland, Christian gave the Norwegian Islands of Shetland and Orkney to Scotland. He administered the state well, but like his predecessors, his court was filled with Germans and he was financially dependent on the Hansa cities. Christian arranged a union of Schleswig and Holstein under the Danish crown in 1460 and founded the University of Copenhagen in 1479. On his death, his son Hans was elected successor in both Norway and Denmark. By that time the Swedish nobles were ready to get rid of their King Sten Sture, but couldn't quite get this promoted before Hans lost his patience and marched on Stockholm with an army, only to be repulsed by Sten Sture the Younger. The clergy supported the King of Denmark, but the nobles pretty well controlled Sweden, with its rising commerce and industry. The University of Uppsala was founded in 1477 and printing was introduced soon afterward. In 1500 King Hans and his cousin, Duke Frederick of Holstein, attacked the Frisians on the fertile marchland at the base of the Jutland peninsula, but they were badly defeated and King Hans was not only humiliated, but then found that some of his subjects, particularly the Swedish peasants, were now ready to throw him over. (Ref. [83](#), [84](#), [85](#), [86](#))

It is of some interest that what might be called the first Swedish Riksdag, or Parliament, resulted when Engelbrektson, mentioned above, called a meeting of the Estates (nobles, clergy, burghers and peasants) which then elected him Regent, in 1435. He was

murdered in a year and the regime collapsed, in part due to the attitude of the Swedish bishops.

FINLAND

Finland remained a province of Sweden, although the Finns, themselves, were little affected by neighboring civilizations. (Ref. [87](#))

OVERSEAS SCANDIVAVIAN CENTERS

An example of the extensive use of various materials for money, in Europe, can be found in a market price list from Iceland, where one dried fish would purchase a horse-shoe, three would buy a pair of women's shoes and one hundred a barrel of wine. (Ref. [88](#))

EASTERN EUROPE

At the beginning of the century the political boundaries were not greatly different than after the Peace of Stralsund.

SOUTHERN BALTIC AREA

Some 200 years of struggle in this area between German, Slav and Balt culminated in the battle of Tannenberg of 1411, where the Teutonic Knights were vanquished by the Polish-Lithuanian army. Lithuania, as a Grand Duchy, was part of the Polish State. Prussia, although partially still under control of the Knights, continued to decline until the Peace of Torun of 1466, under which Pomerelia, Danzig, etc. went under Polish rule. (Ref. [89](#)) In East Prussia, where the Teutonic Knights still held power, the bonds of serfdom were increased and in 1494 Prussian land owners were given the right to have runaway fugitive serfs handed back to them.

NOTE: Insert Map 44. The Hanseatic League and the Political Situation in Northern Europe after the Peace of Stralsund in 1370

Casimir IV, previously Grand Duke of Lithuania, was one of the great rulers of Poland with its Lithuanian Duchy. When his son Vladislav assumed the throne he became king of Bohemia also. As noted previously, the union of Poland and Lithuania had its

problems, basically arising from the fact that eastern Lithuania was orthodox in faith and Russian in language. The Polish ascendance thus brought aggravation of issues arising from the religious and ethnic differences. Mazour says: "The religious disagreement held the conflicting interest of Poland and Russia even further apart and made deep imprints upon the course of political development in eastern Europe for centuries to come."¹² Casimir IV curtailed the independence of the Church somewhat, by making the bishops appointed by the king. Poland and Lithuania were greatly dependent upon river transport, using immense rafts of tree trunks with a central cabin for the sailors. Great wharfs were built at Torun (Thorn), Kovno and Brest-Litovsk. Jewish merchants were very important in the trade of 15th century Poland. (Ref. 90)¹

1

In this way 300 to 500 tons a year were produced. (Ref. 92)

RUSSIA (See map in section on RUSSIA in 19th century C.E.)

It should be noted that the entire region, which we have just discussed as Lithuania, as well as part of Poland, is today part of the U.S.S.R., so that in a sense we could have transferred the last paragraphs to this heading of "RUSSIA", but we have preferred to keep the old historical regions separated. The Times Atlas of World History (Ref. 93) calls the Lithuanian-Polish area "West Russia" and the Moscovy area "East Russia"

Five years before Constantinople fell to the Turks, the Russian Church had declared her independence from Byzantium . This church was the sole patron of letters and arts in Russia. Occasionally the Mongol Khan still mustered attacks and Basil II was captured in 1445 in a serious Russian defeat. Still, the Muscovite rulers managed to hold on to the title of Grand Prince and gradually suzerainty over Novgorod was established and tribute exacted. Although at the beginning of the century the people of Novgorod were still using small Tartar coins, scraps of martens' skins and bits of stamped leather for exchange, by 1425 they began to mint very coarse, silver money. The population of that area continued to increase and commerce developed to the point that almost compelled the unification of the country.

Ivan III the Great, of Moscow, began unification by conquering neighboring Novgorod and then extended his rule to part of Finland, the Arctic and the Urals. He then took some of Lithuania and played the Mongol groups in the east against each other so that in warfare they gradually melted away. Ivan assumed the title of Caesar or Czar, and claimed inheritance to all the religious and political authority of the now defunct Byzantium. Toynbee (Ref. 94) calls this the founding of the Universal State of the Russian branch of the Orthodox Christian Society. The type of Christianity was the eastern, "orthodox", court-ruled form, which had reached Russia long before, through Bulgarian missionaries. The divine right philosophy of absolute power began to be put into practical form. The Assumption Cathedral in the fortress Kremlin, the largest in Russia, was built in 1479 by Ridolfo Fioravanti of Bologna, Italy. Ivan the Great commissioned the first stone palace of the Kremlin, the Palace of Facets, in 1487 and his actual living quarters, Terem Palace, was built in 1499. It was a dark and dreary place, with only candles for light. The first Code of Laws for Russia was compiled by Sudebnik in 1497. (Ref. 95, 96, 97, 98)

Russia's most noteworthy international position in the last 40 years of this 15th century was its isolation, cut off from almost all contact with the outside world by the hostility of adjacent Swedes, Livonians, Poles and Turks. It had no access to the sea in any direction, a feature which remained one of its great concerns for centuries to come. Even the Black Sea remained unattainable. The Ottoman Mehmed II established a bridgehead by capturing Caffa from the Genoese and brought the Khanate of the Crimea under his control, this being the most significant successor of the Golden Horde. A land route to the Crimea was finally established via Constantinople in 1484. By mid-century, in addition to the Crimean Khanate just mentioned, the original Golden Horde had broken up into the Khanate of Kazan in the north, the Khanate of Astrakhan in the southeast on the northwest shore of the Caspian and a Khanate retaining the old Golden Horde name in the southwest. (Ref. 99)

NOTE: Insert Map: 15TH Century Poland, Lithuania and Russia

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1. After 1435 Naples was also ruled by the Aragon king until November, 1500 when, in a secret treaty of Granada, Louis XII and Ferdinand divided this kingdom between them. (Ref. 16)
2. Genoese carracks at this same period were already up to 1,500 tons. (Ref. 17)
3. As quoted by Braudel (Ref. 18), page 312
4. From Reference 121, page 39
5. It will be recalled that movable type was available in China as far back as the 11th century, even though it was not extensively used until the 14th. See pages 564 and 685
6. The name comes from the ancestral castle atop Mt. Zollern in Swabia, but the family descended from the Teutonic Knights, who superimposed their Germanic origins over the original Prussian Balts, who eventually became extinct as a separate people. (Ref. 34)
7. The author of the first European novel, *La Celestina*, was the Jew Fernando de Rojas, cousin of King Ferdinand. (Ref. 44)
8. Quotation from H.A. Wyndham, *The Atlantic and Slavery*, published in London, 1935, page 221, as noted in Reference 211
9. Trager (Ref. 61) says that it was a decrease of copepod crustaceans on which the herring feed. (Original source not given)
10. John Gillingham (Ref. 67), lecturer in history at the London School of Economics, presents a considerable different view, denying the destruction, describing the battles as more the wars of gentlemen taking care not to offend the electorate and hardly affecting the social and economic development of England. Jasper Ridley (Ref. 68) would agree that the battles were fought by the royal and noble families and their retainers in a few counties only, but does remark that there was widespread breakdown in law and order in neighboring areas during these conflicts
11. This quotation was taken from page 140 of Prebble (Ref. 80)
12. Quotation taken from page 38, Mazour (Ref. 91)

Europe: A.D. 1501 to 1600

EUROPE (The time of the Reformation and beginning of world exploration)

At the beginning of this century Europe had a population of about 69,000,000 and it was increasing rapidly. Commerce and financial transactions remained essentially linked to the great fairs held regularly at centers between northern Italy and Flanders and there was a continuous inflation year after year. In a little over 100 years in France, prices rose a total of 627.6% (i.e. from 1471 to 1598). (Ref. 1) In the second half of the century, private trading with traveling merchants became a common feature, probably because the public markets were becoming inadequate and too closely controlled. Advertising was already flourishing and land was bought and sold frequently. The commission system, whereby all merchants worked on commission for other merchants, who did the same for them, became quite common by the end of the century. (Ref. 2)

Braudel (Ref. 3) makes the interesting observation that the first 2/3 of the century was an age of accelerated social promotion, with the highest bourgeoisie group climbing from the trade background to join the limited ruling classes, all over Europe. As a section of the old nobility disappeared, it was replaced by these wealthy newcomers. At the end of the century this trend was reversed - "the door to social advancement was in effect slammed shut, the ladder pulled up." In general, successful merchant families only survived as such for 2 or 3 generations. After that they abandoned trade to live quietly on country estates or when possible slipped into the nobility class.

Roads in Europe were chiefly tracks a yard wide, suitable for horsemen, although sometimes there were adjacent footpaths for pedestrians and herds. When wheeled carriages appeared in large

numbers in this century they posed real problems, making severe town surgery necessary in most places. The new thoroughfares, however, in the long run helped both hygienically and commercially. The inhabitants of towns of ten spent only part of their lives there because they had to participate in the harvests, even in such busy places as Flanders. Algerian pirates had no trouble taking Gibraltar in 1540 because, as they knew, all the inhabitants were outside the walls, helping with the grape harvest. (Ref. 4)

In spite of almost constant warfare and religious strife, or perhaps because of the latter, men of education in science, theology, art and medicine seemed to rove from one European country to another. Because many were born in one nation, educated in another and worked finally in a third or fourth location it would be difficult to describe all of them under the sectional divisions of this manuscript. Some of these remarkable men are therefore listed in this paragraph and one might just classify them as "Europeans". Vesalius, born in Belgium, but a student in France and Italy, wrote one of the greatest medical works of all time on the human anatomy. It was published in Basel, Switzerland in 1543 and included many illustrations drawn by the great artist, Titian. In fact it may be said that the year 1543 marks the beginning of the "Scientific Revolution" because of three features:

1. The anatomical drawings of Andreas Vesalius
2. the translation of Greek mathematics and physics of Archimedes
3. Copernicus' treatise - "The Revolution of the Heavenly Orbs." (Ref. 5)

Roaming central Europe there was Paracelsus, part quack, part magician, part crazy, but posting some remarkable cures and establishing himself as the father of chemotherapy, as he used chemical drugs in place of vegetable remedies. Georg Agricola was a minerologist and mining engineer of this era. Geography was enhanced as Magellan's crew completed circumnavigation of the globe in 1518. The microscope was invented in 1590, the thermometer in 1592 and the pendulum clock by Huygens, late in the century. Simon Stevinus wrote an epochal treatise on "The Decimal" in 1585, Fracastoro of Verona wrote on syphilis, Ambroise

Pare changed many of the concepts of military surgery and modern botany can be said to begin with Leonhard Fuchs of Bavaria. (Ref. 6, 7, 8, 9)

In spite of the advances in medical knowledge, general health in Europe was poor. Of every five children born, two died in infancy and one more died before maturity. The Royal College of Surgeons was established in England in 1505, stimulating medicine there.

By 1600 western physicians knew that scurvy could be prevented by green herbs or citrus fruits, but they were unable to convince the various admiralities. The potato, which was much smaller than that of today, was introduced to Europe through Spain from America about 1534, but it was not well accepted in some areas, some even thinking that the vegetable caused leprosy. After sugar cane had been taken from Africa to South America, the importation of colonial sugar from Brazil and the Caribbean became very significant in international trade. The Portuguese dumping of molasses at Antwerp soon doomed the honey-bee, because the price was so much lower than honey. (Ref. 10, 11) But grain, flour, and bread were the food of Europe. Obtaining bread was the major preoccupation of all and whenever the price went up, violence was threatened. (Ref. 12)

To understand the political intrigues of a very complicated Europe in this century one must realize that there were eight different, powerful factions present, which may be enumerated as follows:

- Charles V, Holy Roman Emperor and King of Spain
- The nobles of Germany
- The Protestants of Germany and later of France
- Francis I, King of France
- The nobles of France
- The Pope
- Henry VIII, King of England
- The Turks

There was almost constant warfare and strife throughout the continent, and these eight factions lined up in various ways at various times and on various sides, to battle each other. For example, Francis I remained Catholic, but at times helped Protestant nobles in Germany and Charles V at other times, but he

also made alliances with the Turks against the emperor and with the Moors against Italy. The pope alternately warred against Charles V and then was on his side. Henry VIII backed the French part of the time and Charles and the Germans at other times. (Ref. 13) It is hoped that in the following paragraphs some of these complications may be partially unraveled.

SOUTHERN EUROPE

The Mediterranean was no longer able to feed itself and it had to buy Baltic grain so that there was a resulting movement of Spanish silver (from America) to north Europe. The Mediterranean world was now always close to famine and this tended to dictate the course of world events, including the politics and wars. (Ref. 14)

EASTERN MEDITERRANEAN ISLANDS

In this century the Turks ran the Venetians out of Cyprus but the latter held on to their other possessions. In 1522 Suleiman the Magnificent appeared off Rhodes with 700 warships containing an army of 200,000. Although the Knights Hospitallers, with about 500 knights and 6,000 soldiers, held out for 6 months, they finally had to withdraw. A few years later the Holy Roman Emperor Charles V gave the Knights the islands of Malta and Gozo for their headquarters and they henceforth were known as the "Knights of Malta". Suleiman attacked them also on Malta in 1565 with 373 warships and 40,000 men. Terrible warfare continued for nearly 5 months and about 2/3 of the attackers were killed and only about 600 of the 9,000 defenders were left alive and unwounded, but they held. Turkish sea-power was crippled by this defeat. The Knights regrouped, started work on a new capital city and a great hospital. (Ref. 15, 16)

GREECE AND UPPER BALKANS

All of the Balkan area, including Greece, was under nominal control of the Ottoman Turks, but in some areas there was considerable local autonomy. At the end of the century (1593) when the Turks were again at war with Austria, Sigismund Bathory, Prince of Transylvania (central Romania) sided with the Austrians. The emperor, however, took Transylvania from Bathory and then Moldavia from Michael, to dominate this area for the remainder of

the century. In the more southern areas a feudal aristocracy maintained estates and fiefs through many generations. (Ref. 17, 18) Although some Greek families and merchants living in Constantinople and coastal cities, such as Smyrna, were very prosperous, Greece itself sank into obscurity and poverty. (Ref. 19)

The eastern Balkans were a great source of cattle for Central Europe and Italy, sending some 200,000 head each year. (Ref. 20) Even so, as in Eastern Europe, large areas moved back into a "second" serfdom - producing raw materials only - not finished goods. Idria, in the Julian Alps of Yugoslavia, became an important source of mercury, which was shipped clear to America for use in the silver mining process. The Austrian state took over these mines as a monopoly, in 1580. (Ref. 21)

ITALY

France and Spain had begun to fight over possession of Italy at the end of the last century, when French armies under Charles VIII invaded, using new batteries of light, mobile, bronze, field artillery, firing iron cannon balls. "Modern warfare" might be said to have begun in great battles at Ravenna in 1512 and Marignano in 1515. (Ref. 22) "The peninsula then became a theater of war where foreign powers competed for control of the Italians' superior wealth and skill."¹ For awhile the stronger city-states held out, as for example in 1508, when the Venetians stood against the League of Cambrai, which included Pope Julius II, Emperor Maximilian and the kings of France and Spain. Even Rome did not escape the terror of foreign invasion. In 1527 Emperor Charles sent the Duke of Bourbon south against the papal forces and the Venetians, with Spanish troops and German mercenaries. When the Duke reached the gates of Rome, he asked permission to march through, was refused and so fought his way into the city. Although Bourbon was killed, his men slaughtered every man, woman and child they encountered on the streets. The pope and his cardinals fled, while looting went on for 12 days, stopped only by the promise of large monetary settlements from the Catholic hierarchy. In general, the Italian cities hated each other, yet managed to support each other against invaders. (Ref. 23)

The primacy of Italian cities further declined as the Mediterranean became the scene of struggles between the two power-houses of the time - the Spanish Habsburgs and the Ottoman Turks. Milan became

ruled by a Spanish governor; Naples, Sicily and Sardinia by Spanish viceroys. Genoa retained its western colony of Corsica, but only after a long revolt late in the century (1551-1569), with the insurgents receiving help from the Turks. Otherwise Genoa, too, was tied economically to Spain. This link with wealthy Spain and the richness of the town of Genoa, itself, did not alleviate the wretchedness of the lower class. The homeless poor of Genoa sold themselves as galley slaves every winter. (Ref. 25) One redeeming feature was an attempt at rejuvenation of the old "Champagne" fairs, which had first moved to Geneva, then to Lyons and finally now to Piacenza, near Genoa. It cannot be denied that it was mainly Genoese who financed the credit operations allowing Spain and others to develop the great trade operations with the New World, at least up until 1568. After that the Piacenza fairs centralized the Genoese business transactions and international payments. (Ref. 26)

Venice was threatened by land and sea, but struggled to stay independent, although it had frequent famines with people begging and often dying in the public square. The entire population was also temporarily incapacitated in 1588 by what was later called "grippe". Even the Grand Council was completely empty. The disease then spread to Milan, France, Spain and even the Americas. (Ref. 27) The famine, felt throughout the Mediterranean, was partially relieved in 1591 when wealthy merchants organized a spectacular diversion of northern ships, loaded with wheat and rye, into the Mediterranean. Portuguese merchants of Antwerp were among those making allegedly 300% profit on these ships, but that did not matter to starving Italians. (Ref. 28)

Naples was one of the largest cities of Europe and an extravagant place, with the Neapolitan nobles striving to keep favor at the court of the Spanish viceroy. (Ref. 29) In general, southern Italy was Spain's and northwest Italy belonged to France. The other great powers, England and Germany, by remote measures changed sides from year to year and there was much confusion. In the end, Italy was devastated and financially exhausted. To add insult to injury, both syphilis² and typhus appeared in Europe during the long series of Italian wars, lasting from 1494 to 1559. In Italy syphilis was called the "French Disease"; the Spanish called it "Naples Disease". Gonorrhea was also rampant. Typhus swept the peninsula in 1505 and again in 1528 while the first great influenza epidemic struck in

1510 and plague was in Rome in 1522. (Ref. [30](#), [31](#), [32](#))

The papacy had its own history in this century. Caesar Borgia, son of Pope Alexander VI and a former cardinal, attempting to save Italy for the papacy in 1502 in his capacity as the Duke of the Romagna, joined the French in an attack on Naples to free it from the Spanish. The new pope, Julius II (1503-1513), frustrated his schemes, however, and he then turned to the Spanish side. Julius II, one of the greater popes, was a warrior and somewhat morose. He was followed by happy Leo X, who believed that joy should be unconfined, but who failed to realize the seriousness of the developing theological situation. Rome reached new heights of liberty and sexuality. Martin Luther came, saw Rome, was shocked and went home to Germany to initiate the reformation. (Ref. [34](#))

In contrast to the turmoil on the political and religious scenes, however, the first half of this century also marked the apogee of the Renaissance, with intellectual and artistic supremacy. Michelangelo and Raphael continued their works and Titian added his classical art. Leonardo da Vinci lived well into this century, now residing chiefly in Milan and supported by the French King Louis XII, who controlled Milan most of this period. Subsequently he was subsidized by Francis I. It was also the time of Aretino, Santi, Cellini and last but not least Machiavelli, the amoral, political philosopher, who undoubtedly influenced the monarchies of the world for years to come. Wealth and urban development was concentrated chiefly in the Mediterranean and in Italy in particular, with the only cities of more than 100,000 in the western world being Naples, with 300,000, Venice, Milan, Constantinople and Paris. Rice was now grown throughout the peninsula, actually as an emergency foodstuff and the hard work involved began to make a sharp demarcation between the proletariat laborers and the capitalist owner. (Ref. [35](#)) Communications were difficult, as evidenced by the fact that a message took 27 days to go from Venice to London, 46 days to Lisbon, 37 days to Constantinople, 80 days to Damascus, 65 days to Alexandria and even some 22 days just to go to Palermo, Sicily. Even so, Tuscany, Venice and Genoa moved tens of thousands of tons of grain from the Baltic and the Black Sea, through international merchants and letter of exchange in Nuremberg and Antwerp. (Ref. [36](#)) Venice had commerce with the Hanseatic League through Flanders and Genoese merchants had similar connections as well as contact all over the Mediterranean and

particularly at Seville, as we have seen. Florence bankers of the Medici family still controlled the capital in most northern European capitals. However, when Cosimo de Medici created a guard of 2,000 horsemen in Florence in 1531, the cost of the horses ruined him. (Ref. 37, 38, 39)

People, in general, were not what we might call "cultured" in the 16th century. Silver forks were used at table in Venice about 1581, but the custom did not last long and they were not used elsewhere, except in France. At this time the potato, corn, beans and squash spread to northern Italy. (Ref. 40, 41)

CENTRAL EUROPE

GERMANY AND AUSTRIA

Germany consisted of a number of autonomous states and in the beginning of the century, at least, Austria was just another German-speaking sub-kingdom, all a part of the Holy Roman Empire. As noted previously, the "Electors" of the various German states chose an emperor, who was nominally over all, although his actual power over any particular state was probably little or none. Maximilian I (Habsburg) of Austria opened the century as that emperor and made his capital at Innsbruck. He married into the House of Burgundy and had his son marry Juana of Castile and Aragon, as well as arranging that his grandchildren marry into the royal families of Bohemia and Hungary. Thus, at the end of his reign, the Habsburgs were well entrenched in all of central and western Europe and their home base of Austria was a power to be reckoned with. Maximilian's grandson followed him as king of Austria as Ferdinand I, a ruler who had constant troubles with the Turks on the eastern border. In 1529 the Ottomans were actually under the walls of Vienna, where they were supplied by camel trains. But there were also peasant revolts in both Germany and Austria in 1525 and latent social war continued for more than another century. Peasants everywhere shared more or less constant poverty and low living standards, yet managed to snatch a precarious existence from the soil. (Ref. 42)

Ferdinand's brother, Charles of Ghent, raised in Flanders, inherited the throne of Spain, where he was known as Charles (or Carlos) I. In 1520 he was chosen as the Holy Roman Emperor as Charles V and by 1550 the Habsburg Empire was at its height,

including all of Spain, the Balearic Islands, Italy (excepting the papal states and Venice), Sardinia, Sicily, the Netherlands, all of Germany, Austria, Hungary (that part not held by the Turks), Bohemia and parts of Serbia. On the European continent proper, only Portugal and France and the small areas of Italy previously mentioned, were out of the empire. In addition there were vast overseas holdings in the Americas.

The Fuggers, with headquarters at Augsburg, furnished the money for Charles V and their operations stretched from Danzig to Lisbon and from Budapest to Rome, to Moscow and even to Chile, where their interests extended to silver, copper and mercury mining. Jakob Fugger had learned double-entry bookkeeping in Venice while it was unknown in Germany at that time. The Augsburg merchants also owned silver mines in Bohemia and the Alps and their city rivalled Antwerp as a trade center, particularly for central and eastern European communities. In this connection we must also mention the Welsers of Augsburg, whose financial dealings also penetrated Europe, the Mediterranean and even the New World. But the state always kept a hand in. Augustus I of Saxony owned 2,822 *Kuxen* (shares) in the mines of his state. These various mines brought together for the first time huge concentrations of labor. In 1550, in the mines of the Tyrol there were 12,000 workers. 500 to 600 men were used solely to keep pumping water that threatened the tunnels. In the last half of the century, however, mining in central Europe declined, apparently because of falling profits, destruction of forestland with resulting high cost of fuel and increased wage demands. (Ref. [43](#), [44](#), [45](#), [46](#), [47](#))

NOTE: Insert Map 57. Europe in 1556. The Habsburg Dominions

One of the very colorful and productive personalities of this period was Theophrastus Bombastus von Hohenheim, commonly called Paracelsus (d. 1541) He obtained a doctor's degree at Ferrara in Italy but then barnstormed Germany, denouncing the medical classics and their followers and actually adding something to pharmacology, although he still thought disease was caused by influences of the stars and planets. The "sweating sickness", leprosy

and epidemic chorea, which had been prominent diseases of the preceding century, were beginning to disappear, but syphilis was common and gonorrhea rampant. These two venereal diseases were directly responsible for the suppression of communal baths, which had been popular in Germany. Also becoming more common were typhus, diphtheria, small-pox, measles and scurvy (among northern sailors). Ergotism reached endemic levels, bringing insanity and death to thousands who ate bread made from the infected rye. (Ref. 48, 49) Meat was plentiful, with herds of up to 20,000 half-wild cattle coming into Germany at Buttsedt, near Weimar. Others arrived from Switzerland. Wild horses - that is, horses that had returned to a wild state, although not usually eaten - were well distributed all over Europe and particularly in northwest Germany, Alsace and the Vosges. There was an extensive copper mining industry at Mansfeld in Saxony. Because of the poor agriculture in the mountain regions of Swabia about Lake Constance, the peasants there had become linen-workers. (Ref. 50)

The various German municipalities and states remained more or less independent under their own dukes or princes. The Margrave of Brandenburg ruled extensive territories between the Netherlands and Poland. The apparent precocity of some of these medievals can be a source of continued amazement to us in the 20th century. The Margrave's brother, Albert of Brandenburg, was in 1515, at the age of 25, Archbishop of Mageburg and Bishop of Halberstadt and trying to become Archbishop of Mainz, which would automatically make him one of the seven Electors of the empire, like his brother. To help him buy dispensations to obtain this Archbishopric, which was to cost 10,000 ducats, the pope issued an indulgence to anyone who contributed money for the building of a new cathedral in Rome - such indulgence to shorten the stay in purgatory for the contributor and all his relations. Secretly, half the money was to go, not to the cathedral, but to the Fuggers, who would loan Albert the fee for his Archbishopric. The duty of raising the money in Germany was entrusted to Johann Tetzel, about whom we shall hear more later. (Ref. 51)

There was an increasing close connection between Brandenburg and East Prussia and in 1539 the Elector of Brandenburg (a Hohenzollern) was awarded the rights of co-vassalage over East Prussia, together with Albert of Hohenzollern, who had now become the Grand Master of the Teutonic Knights. Bavaria was

already ruled by the Wittelsbach family. (Ref. [52](#))

The great story of this century in Germany, however, is that of the Reformation. Although we have seen the previews of the revolt against the Catholic Church in Wiclif and Huss, the true Reformation began here with Martin Luther. The stage was set when Pope Leo X issued the most famous of all indulgences - the one mentioned above regarding money to finish the new St Peters Church and secretly to indirectly finance an Archbishopric for Albert of Brandenburg. The Dominican, Tetzel, was sent out into Germany to peddle Absolution of all sins, past and present, release of relatives from Purgatory and various other indulgences for various sums of money. When Tetzel approached Saxony, the local ruler, Frederick the Wise, asked Martin Luther, Catholic priest and professor at the University of Wittenberg, for approval of Tetzel 's procedures. Luther refused approval; Tetzel denounced Luther; Luther countered with the posting of 95 theses condemning various practices of the pope and the Reformation had started. This was in 1517.

Martin Luther was a complex man, brought up under the sternest discipline and plagued all his life with the devil, demons and witches. His reformed theology was chiefly against the popes and their corrupt hierarchy. He argued for the Bible against papal decree. He thought that not good works, but faith in Christ alone, brought salvation from Hell and that this was preordained and only a few could make it. The pope issued Bulls against Luther and Luther wrote books against the pope - in German, so the people could read them. His theology went back to Augustine, taking the New Testament very literally. But he also revered the Old Testament, which he translated into German. His God was more like the old Yahweh of the Hebrews. He felt that priests should marry and eventually did so, himself. As he got older he got more and more intolerant, vehement and militant, damned all knowledge and reason and would have everyone return to the old, simple, agrarian life. In the end he declared Zwingli and other Protestants who had appeared on the scene, as heretics. He defended the divine rights of kings and glorified war as the work of God. He exalted the state as the sole source of order and gave a premonition of Imperial Germany to come. At the time, however, German unity was hampered, not furthered, but we are getting ahead of our chronological story.

A year after Charles V became emperor in 1521, the Diet of Worms was called to decide what to do with Luther. The resulting "Edict of Worms" made Luther an outcast and ordered his works burned. He went into seclusion for a year, but the revolution continued anyway in a peaceful way for awhile. In 1524, however, the Peasants' War developed as 30,000 impoverished people in southern Germany started a social revolt against nobles and priests. Religion was only part of the cause, but out of this, flames burst out over half of Germany. Luther finally tried to stop the revolt, but it continued anyway for another year in Austria. There was a terrific loss of property and life and the reformation, itself, was almost lost in this war, because in spite of Luther, the nobles associated this class revolt with the reformation movement. The revolt was finally extinguished by slaughters and massacres, but by 1527 the Lutheran "heresy" had become orthodox in half of Germany. Economic factors (there was now no money going to Italy) and the pressure of the Turks, which kept the emperor and his troops busy, allowed the Reformation to succeed. In 1531 the two religious forces, one represented by the Catholic League and the other by the Protestant Schmalkaldic League, had many conferences but made little progress in conciliation. From this time on the princes and nobles, rather than the theologians, were the Protestant leaders, for the issues concerned property and power far more than dogma and ritual. (Ref. 53)

The true German religious war, as contrasted to the Peasants' War, began in 1546, a few months after Luther's death. The Protestant Saxon army was badly beaten at Lochau.

By 1547 a kind of settlement was reached but in 1552 all Germany was at war again. Charles V abdicated, giving Germany to his brother Ferdinand and Spain and the Netherlands to his son Philip. Charles, himself, died in 1558 in a monastery where he had been living in royal splendor. The greatness of the Holy Roman Empire died with Charles.

The religious Peace of Augsburg, negotiated by Ferdinand, marks the end of the Reformation period. The adopted formula of 1555 recognized the legality of the status quo - in both religious and territorial sovereignty. Ecclesiastical officials had the right to convert to Protestantism, but they could not secularize their property. The only real victory of the Lutherans in this peace treaty was a legal recognition of their existence. Four factors colored the

second half of this 16th century in Germany, as recorded by Rodes (Ref. 54):

1. **The Counter-Reformation:** This really began with Pope Paul III. The final Council of Trent convened in 1562, controlled by the Jesuits and it reaffirmed all the basic Catholic doctrine. There were no concessions to the Protestants and the Council did not reconcile the two faiths. Actually the Catholic Church was immensely strengthened as it then established the "Catholic Index"
2. **Disunity of the Protestants:** "Disunity among the Protestants became particularly evident in the distrust and even hatred between the established Lutheran faith and the new Reformed Sect of Calvinism that began to spread across Germany in the 1550s."³ Calvin's predestination and his doctrine of attributing sovereignty to the religious community rather than to the state, divided the groups. There were many decapitations of Protestants by Protestants, as well as by Catholics. Lutheranism began to assume primarily a defensive attitude, while Calvinism, militant and aggressive, kept the expansive spirit alive and completed the conversion of Holland and Scotland while also retaining England in the Protestant camp
3. **Foreign Influences on German Affairs:** Most important was the division of the Habsburg inheritance. King Philip II (Spain) was the wealthiest and most powerful ruler of Europe and his troops frequently interfered in Germany in behalf of Catholicism. In addition, German princes continued their various alliances with foreign powers. The German aristocracy rushed to adopt foreign customs and culture, particularly French
4. **Lack of Political Leadership:** In Germany, only one ruler stood out in this period, Duke Maximilian I in the Duchy of Bavaria and he did not come into power until 1597.

HUNGARY

It was a bad century for Hungary, beginning with a great revolt of the peasants, under George Dozsa. This uprising against the aristocracy was finally put down in a sea of blood by John Zapolya. Immediately the Werbocz Code was proclaimed, which made the serfdom of the peasants perpetual. A strike by Hungarian miners in

1525 and 1526 started that industry on a downward slide. (Ref. 56)

The Turks, under Suleiman, defeated and killed the Hungarian king in 1526 and overran the nation with an army of 150,000 men. There followed a period of division of the country with a narrow western area remaining as Royal Hungary under the Austrian Habsburg, Ferdinand, and the remainder of the country choosing John Zapola⁴ to reign as a puppet king under Suleiman in one portion, while the far eastern area was directly under Turkish rule. Later the sultan took the central portion under his rule also, leaving only Transylvania to John Sigismund, Zapolya's heir. Under the Turks, Hungary was devastated and the ultimate result was to give psychological impetus to the eventual union of Hungary to Bohemia and Austria under the Habsburg Dynasty, which was to last for 400 years. (Ref. 57, 58, 59)

The Reformation came into Hungary through German immigrants. By 1550 it seemed that all Hungary would become Protestant, but rivalry between Lutheranism and Calvinism tore the movement in two and Catholicism again became supreme.

CZECHOSLOVAKIA

In 1526 Emperor Charles V's brother-in-law, King Ladislas of Bohemia (and also of Hungary), was defeated by the Turks at Mohacz and he drowned in the Danube while trying to escape. He was succeeded by Charles' brother, Ferdinand. In general Bohemia had weak kings in this century, with the nobles refusing financial support to the throne. The aristocracy as a whole, however, extended its power and peasantry sank back into serfdom. On the religious scene we must recall that through the Hussite movement, Bohemia was actually Protestant even before the time of Luther and by 1560 2/3 of the population was definitely so. In the following year, however, the Habsburg Ferdinand introduced the Jesuits and the tide turned back to the Catholic Creed. The accession of Archduke Ferdinand (later emperor) began the long Austrian and Habsburg domination of Bohemia.

SWITZERLAND

As the century opened Switzerland gained some territory from Italy south of the Alps and fought against France, but the Swiss were finally defeated at Marignano, in 1515. The country was still having

difficulty "pulling itself together". The Swiss were great fighters, as evidenced by their extensive use over all of Europe as mercenary forces, but they still did not always pull together as one nation. In 1533 Geneva, which had previously been a part of Savoy, became independent and in 1536 Swiss armies took Vaud from Savoy. (Ref. 61) The Alps continued to be for the most part untamed and horses that had returned to the wild state were distributed throughout the mountains.

This country was host to two great religious reformers, one the native Zwingli of Zurich and the other John Calvin, born French, but active in theology in Switzerland by 1534. Zwingli had a humanist education, became a Catholic priest in 1506 and by 1508 was attacking the principles of indulgences, clerical celibacy and the Mass. By 1517 he called for a religion based entirely on the Bible, and in 1521 he proclaimed openly for the Reformation, which was already well under way in Germany. Zwingli differed from Luther only in believing that the Mass was entirely symbolic. Eventually he became the head of both the new church and the city-state of Zurich. The local contests with surrounding Catholics became actual battles and Zwingli was killed in one of them. Five Catholic Cantons had banded together against Zurich and the Reformation movement and the resulting conflict greatly weakened the Swiss Confederation for the remaining part of the century. Anabaptism arose among members of Zwingli's circle, crystallizing as a distinct variety of Protestantism in 1525, when Conrad Grebel and George Blaurock re-baptized their group and called themselves "Brethren". After 20 years of persecution, the sect received its permanent doctrine from Menno Simons. Their three fundamental principles were:

1. adult Baptism
2. separation from the world
3. literal observance of Christ's Commandments

NOTE: Insert Map 48. The Swiss Confederation 1526

Upon attaining an essentially independent status in 1533, Geneva had allied itself with the Cantons of Fribourg and Bern and had accepted the Reformation preached by Guillaume Farel. Calvin

came there to preach in the middle of the century, after Zwingli's death, and wrote the book *The Principles of the Christian Religion*, which was modeled after Luther and followed the ideas of Paul and St. Augustine. He put these thoughts into an ecclesiastical doctrine and established the Reformed and Presbyterian Churches, which won the allegiance of hundreds of millions of men in Switzerland, France, Scotland, England and North America. His theology was dismal - this life is a vale of misery and tears and it would be better to die immediately at birth. He agreed with Zwingli on the Mass; he set rigid moral laws; and made the church supreme again over the state. He was hated by Luther over the single point of doctrine about the interpretation of the Mass. In later years, Calvin became more and more intolerant and had Michael Servetus burned at the stake for being too liberal and humanistic. (Ref. 62)

WESTERN EUROPE

McNeill (Ref. 63) says that Europeans of the Atlantic seaboard developed command of all oceans of the world within a half century because of three factors: (1) A deep-rooted pugnacity and recklessness. (2) Complex military technology, particularly naval. (3) A population inured to a variety of diseases long endemic in the old world. From 1560 or 1580 population in the western world, especially in France, Spain and Italy, again became too dense and eventually poverty ensued. (Ref. 64) Western Europe, in general, tended to be somewhat antagonistic to the Genoese, who were the chief "capitalists" with the most money, ready "to buy everything up". (Ref. 65) This may be analogous to more recent situations there regarding Americans. (Ref. 66)

SPAIN

In a little more than a half century Spanish institutions and civilization were impressed upon an area larger than the whole of Europe. The Spanish army was the most successful of Europe, with even nobles in its ranks, carrying handguns. Their real pride, however, was the cavalry and after 1525 they dominated Europe until the middle of the next century. Long before that, Spain was spending 70% of its revenue on weapons. For the infantry one man in twelve was conscripted, but he too became a professional. (Ref. 67)

Isabelle, the great queen, died in 1504 and Ferdinand, whose natural Machevellian tendencies had been tempered by Isabelle, died in 1516. In that short time, however, he was totally involved in European politics, goading Henry VIII into war with France and even talking Henry into sending 7,000 men to San Sebastian in 1512 to drive the French from Navarre and conquer Guienne. The attack was premature and a dismal failure. Later, in 1518, the French advanced again, capturing the Spanish garrison at Pamplona, a battle in which the Spanish officer Ignatius de Loyola received a severe leg wound. During his convalescence he reformed his life and founded the Society of Jesus, as we have previously noted. (Ref. 68) Ferdinand's grandson, Charles of Ghent, became Carlos (Charles) I of Spain and Sicily and because the young man's other grandfather had been Maximilian of Austria, he also became king of the Netherlands. As noted above he later became Holy Roman Emperor as Charles V and thus ruled Germany and Austria also. At first Charles could speak no Spanish and he tried to bring an entire Flemish court with him to Spain. Almost immediately after arrival he had to leave to go to Germany and he left Cardinal Adrian of Utrecht to act as regent. In his absence the nobles rose up against him in the Revolt of the Comuneros, but this was soon transformed into a class war of commoners against nobles, so that the latter eventually had to support the king to save themselves.

By the time Charles returned with German troops, the rebellion had already pretty well burned itself out and Spain became an absolute monarchy.

Charles abdicated all titles in 1556 while in Brussels and his son Philip II took over as king of Spain. It was Philip who sent the great Spanish Armada against England in 1588 to avenge the death of Mary of Scots and to restore Catholicism to England, but as we shall see shortly, he failed in this endeavor. This preoccupation with northern Europe was new to Spain, basically a Mediterranean country, and it happened only as a result of the dynastic accidents and manipulations of the Habsburgs. Philip II ruled more of the earth's surface than anyone since the beginning of history, but all of the silver from Peru and Mexico had not kept the Spanish court from sinking ever deeper into debt, a lot of the money disappearing into the conflicts in the Netherlands. The Spanish court repudiated its debts to the Fuggers on 5 separate occasions between 1557 and 1627 and those bankers progressively withdrew from financing

governments. In 1580 the Spanish cavalry, under the Duke of Alva, quickly conquered Portugal and from then on for the rest of the century Spain and Portugal were united under a common Iberian crown, which ruled three empires - the silver empire of Spanish America, the spice empire of the Indian Ocean and the sugar empire of the south Atlantic. From 1,000 to 2,000 Spaniards left Spain for America each year during this century. (Ref. [69](#), [70](#), [71](#), [72](#))

We must add some details about Philip's war with England. Actually he feared this, but was egged on by the pope and some of his advisors, so that eventually he was enticed into gathering a great fleet of ships from all over Iberia and Italy, for the purpose of holding the English fleet at bay while the Duke of Parma led Spanish troops, which were then in Belgium, across the channel to restore Catholicism to England. Provisioning the great fleet was a problem never adequately solved, partly because of Spain's worsening financial situation. A raid along the southern coast by Sir Francis Drake, which among other insults resulted in the destruction of about 1,700 tons of hoops and pipe staves, which had been destined to be made into casks to carry 25,000 to 30,000 tons of water, wine, salt meat, salt fish and biscuits, did not help matters. The substitute, green barrel staves, which the Spaniards then had to use, made leaky and quickly fouled casks.

In late May of 1588, under a somewhat inexperienced and reluctant Captain-General Medina Sidonia, the Spanish armada finally set off from Lisbon. In the first line were 10 Portuguese and 10 Castillian galleons, reinforced by 4 great, armed West India merchant- men. Then there were 4 galleasses of Naples manned by 300 soldiers and sailors, 300 rowers and 50 guns apiece. The second line had 4 squadrons of 10 large merchantmen, each heavily armed, and attached to them were 34 light, fast ships and 23 awkward hulks acting as freighters and supply ships, making a total of 130 vessels. Included in the personnel were 180 friars and priests. The armada carried 2,431 cannon (of which 934 were iron, instead of bronze), 7,000 arquebuses, 1,000 muskets and 123,790 bullets and shot. (Ref. [73](#))

The fleet was at first becalmed for several days just off the Portuguese coast, then scattered by a storm, with the loss of 2 galleasses and 28 other major ships, while still others were badly battered. In addition, there was already much fever, scurvy and dysentery aboard and the green-stave casks were already producing

spoiled food and water.

Nevertheless, the battle was eventually joined at the mouth of the English channel on July 31, 1588⁵, with the longer range cannon of the British ships holding the Spanish out of their gun range and preventing grappling and boarding as the southerners were wont to do. After various engagements in the next several days the Spanish lost several ships, some aground and some sunk and/or exploded when the English launched a "fire-ship" attack. By August 8th the Spanish were almost out of ammunition and food and on August 12th the remaining ships turned tail and escaped into the North Sea. The English did not follow, although the Spanish command expected them to do so at any moment.

The damaged remnants of the great armada sailed up around the north end of the British Isles, carrying a load of sick and starving sailors. Some 17 ships are said to have sought refuge on the Irish coast and perished there. Thousands must have drowned- and those that survived a landing were battered to death by the Irish or turned over to English soldiers. Finally in September, 1588 some 44 vessels straggled into the harbor at Santander, Spain, a fleet shattered by battle, weather, sickness and starvation. On the flagship San Martin alone, besides those killed in battle, there were 180 dead of scurvy, typhus or influenza, aggravated by hunger and thirst. More died daily in port while the unprepared countryside people tried to gather food and clothes and arrange hospital facilities. (Ref. [74](#))

In spite of that armada fiasco, Spanish merchant ships still brought American treasure back to Spain, actually in greater quantities between 1588 and 1603 than in any other 15 year period. The defeat had not significantly altered the command of the seas commercially. Seville was actually prosperous as never before and 7% of the population was slave. Black Africans, white Moriscos and Moors from Granada and North Africa and Indians from America all could be seen in the bustling streets. (Ref. [75](#)) The battles of the armada were the first of their kind with the massive ships and their long range cannon, but as far as actual numbers of vessels and men were concerned, this has been over-emphasized in many histories. (Ref. [76](#))

In this century the Inquisition continued with the ecclesiastical attack on witchcraft at its height. The Inquisition was a cause as well as an effect of intense Catholicism in Spain and it held the

Reformation to a minor skirmish in that country. After the Jews were run out, the Moors came under the Inquisition scrutiny and 3,000,000 of them left Spain and returned to North Africa. In this exodus of Jews and Moors, Spain lost an incalculable treasure and it has never made up for it intellectually and other ways. Thereafter, knowing only one religion, people submitted completely to their clergy and surrendered the right to think except within the limits of the traditional faith. Spain chose to remain medieval, with little intellectual activity. (Ref. 77) One bright light was to be found in the Navarrese, Miguel Serveto, who discovered that blood was pumped to the lungs by the arteries. But, as mentioned in a paragraph above, he was then burned alive in Geneva for some alleged religious eccentricities in letters he wrote to Calvin. The imprint of the Catholic king's world-wide empire can be noted in the general acceptance all over Europe at that time of the black, solemn, short capes and high collars with a small ruff. (Ref. 78, 79)

The potato⁶ was brought to Spain from Peru about 1565. The peninsula continued to raise tremendous numbers of sheep, exporting wool to Holland, Germany and Italy.

Very important in this industry was the Mesta, a guild of sheep owners, which arranged the movement of the herds of sheep from summer pastures in the north to winter quarters in the south, preventing landowners from fencing across the routes, ensuring the marking of the sheep, fixing the resting places and helping with the-marketing. By 1526 there were 3,400,000 sheep moving each year some 200 to 300 miles up and down Spain, averaging 5 miles a day. The crown protected the Mesta and this centralization prevented the birth of anything like a free-enterprise system and blocked progress in Spain. It is even probable that the Mesta more or less forced the Spanish kings to expel both the Moors and the Jews, because the latter groups were more concerned with farming crops than with livestock. In spite of sheep and potatoes, the years 1599 and 1600 were years of famine and plague, which decimated Andalusia and Castile. (Ref. 80, 81) The government finances did not help the overall situation. By 1600 40% of the government's income went for servicing old debts. (Ref. 82) International capitalism had successfully captured the opportunity which the discovery of America had given Spain. There was a three-tier pyramid: the base consisted of peasants, shepherds, silk-producers, artisans and peddlers; above them were the capitalists of Castile,

who controlled those local people; and finally, running everything from above, were the agents of the Fuggers and soon of the Genoese. (Ref. [83](#))

PORTUGAL

This was a golden age for Portugal, as the Age of Imperialism began with the development of an extensive empire. In addition to Brazil, the Portuguese had established a colony with a governor in India and had set up commercial relations with China. In 1509 they won a decisive battle with the Moslems for control of the Arabian Sea, off the Indian port of Diu. They had heavy ships with cannon and the Moslems were short of metal and under armed. As a result of all this, Portugal had virtually taken over the spice trade from the Venetians. In 1523 alone, some 100 tons of ginger and 2,000 tons of pepper had gone into Germany from Lisbon. By the middle of the century the Portuguese had a string of more than 50 forts and factories from Sofala on the east African coast to Nagasaki, Japan. (Ref. [84](#), [85](#)) Strangely enough the Portuguese merchantmen carried no artillery, even though French privateers on the Atlantic possessed it. The Portuguese carracks were the giants of the seas, however, with a displacement of up to 2,000 tons⁷ and carrying up to 800 persons. (Ref. [86](#))

At home, the Avis Dynasty continued with Manoel I the Great ruling until 1521, then Joao III, followed by Sebastian I (1557-78). The latter undertook a new religious war against the Moors and was killed in the process, ending the dynasty. The Avis had been good rulers and their empire had had good administrators so that Lisbon had become a center of wealth, luxury and a depository for Asiatic goods. The only cloud on the horizon had resulted from Manoel's borrowing from Genoese bankers to equip his Asian-bound ships. Interest on these debts and agents' dishonesty cut heavily into the trade profits and the kings did not do as well as others around them. (Ref. [87](#))

As the century progressed black slavery, imperial war, corruption at home and other features began to lay the groundwork for decline. An earthquake, which killed 30,000 people in Lisbon in 1531 did not help matters. Following the lead of Spain, Portugal expelled her Jews and soon the Inquisition entered with consequences similar to those in Spain. In the dynastic struggle which followed the end of the Avis Dynasty, the Spanish, under the

Duke of Alva, invaded Portugal and defeated a Portuguese contingent in the battle of Alcantara in 1580, near Lisbon, thus allowing the Spanish king, Philip II, to also become the Portuguese monarch, at least in theory. English, Dutch and French forces then began to attack the Portuguese overseas colonies. (Ref. [88](#), [89](#), [90](#))

FRANCE

Louis XII died in 1515 without heirs and the Valois, Francois I, became king and entered in the intrigues of a complicated Europe. Within 8 months he had invaded Italy and defeated a seasoned Swiss mercenary army of the pope near Milan. Venice, still antagonistic to Emperor Maximilian, supported Francois' armies. (Ref. [91](#)) These "Italian Wars" were actually the start of nearly 60 years of warfare of France with Spain, ending in the Peace of Cateau-Cambresis, in 1559. Since Spain was ruled by Charles V, after 1540 Francois entered negotiations that were designed as a three-pronged attack against the Habsburgs, whom he felt to be his greatest antagonist. The triad attack included: (1) Subsidies to German Protestants so that they could attack Charles V from the north. (2) Alliance with the Turks to attack Austria from the east. (3) Launching a campaign with the French army from the west.

The Holy Roman Empire did decline but this was certainly not in any way the result of Francois' manipulations. Actually the French king was held as a prisoner in Madrid by Charles for about a year (1525) and his children were held as hostages much longer. (Ref. [92](#)) It is also true that Francois was so busy with women that he had very little time for administration. He lived lavishly to the extent that he impoverished his people. His sister Marguerite and his mother Louise d'Angouleme of Savoy were very influential in his government and the former was very tolerant religiously, protecting many Protestants as the Reformation began to arrive in France. In 1536 Francois I did occupy the Duchy of Savoy, but by the Peace of Cateau-Cambresis Duke Emmanuel Philibert re-obtained the Duchy, excepting that portion which had been taken by the Swiss. (Ref. [93](#))

The Reformation was somewhat delayed in this country because of a "concordant" with the pope, allowing the king to appoint and control church officials in the nation. This removed the dominance of Rome, which was such a great factor in Germany's revolt.

Nevertheless, by the second half of the century this did become a

political issue that led to the Wars of Religion, France's gravest civil conflict since the Hundred Years War.

Wedge between conflicts were the short reigns of Francois II, first husband of Mary Stuart of Scotland and niece of the Guises, to be mentioned below, and Charles IX. Francois II died of tuberculous meningitis in 1560 a year after he was crowned, while his brother Charles IX died of pulmonary tuberculosis at age 24 years, in 1574. (Ref. 94) From 1559 to 1598 there were 8 distinct wars, interrupted by treaties, aggravated by massacres - a muddled, chaotic period, which showed that the French are never crueller than when fighting one another. Huguenot Protestants, taking Calvin's doctrines, became more and more powerful so that by 1561 there were 2,000 Calvinistic churches. This was in the reign of the "boy king", Henri II, son of Francois II and ruling from 1549 to 1559. He was a weak monarch, greatly influenced by Anne de Montmorency, his mistress Diane de Poitiers⁸ and by Francois and Charles de Guise. Even so, in this period some things were accomplished for France. Calais was finally re-taken from the English and exports of grain, wines, fabrics and woolens gave France a positive trade balance with all its neighbors except one - Italy. Most of the money flowed out through Lyons to Italy for costly silks and velvets, spices, marble and Italian artists' services. (Ref. 95)

Three separate factions began to develop in France: The Valois royalists of Catholic faith, who for awhile tried to be tolerant of the new Protestantism; the strong Catholic faction led by Henry Guise of royal blood from Anjou and Lorraine; and finally the faction of Henri de Navarre of the House of Bourbon and of mixed inheritance from Spanish, Basque, French and Austrian ancestry. Henry Guise had a dual purpose in life - to kill all Huguenots and make himself king of France. Henri de Navarre, a nominal Protestant, also was a claimant to the throne. The destinies of these factions were interwoven with the Spanish-English-Dutch conflict at the end of the century, which we have indirectly mentioned when discussing the Spanish Armada. Henri III, a Valois who had been elected king of Poland, returned to France as king in 1574, on the death of Charles XI. He vacillated on the religious issue and let himself in great part be dominated by his mother Catherine de Medici and his cousin the tricky Duke of Guise, champion of the anti-royalist conspiracy known as the "Holy League", serving the religious interests of the papacy. (Ref. 96, 97, 98, 99, 100)

The antagonisms of the factions just mentioned culminated in 1585 in the last of the 8 wars and carrying the name "The War of the Three Henris". Confusion reigned supreme as Henri III fled to Blois, hoping to get support from the States-General and finding none, he arranged the murder of Henry of Guise and his brother, a cardinal. In retaliation a new revolt of the Catholic party broke out and Henri fled to the camp of Henri of Navarre among the Huguenots, where he was murdered by the monk, Jacques Clement. This left only the Bourbon, Henri of Navarre, but the Catholic group refused to recognize his succession to king and named another. But Henri besieged Paris, defeating the Duke of Mayenne and the Spanish Duke of Parma and finally, supported by somewhat moderate Catholics who wished a strong national monarchy, he was crowned Henri IV, King of France.

NOTE: Insert Map 62. France During the Huguenot Wars 1562-92

He returned to the Catholic faith, but in 1598 issued the Edict of Nantes, which gave the Huguenots equal political rights, although not complete religious freedom. This ended the French religious-civil conflicts, often called "The Huguenot Wars". (Ref. [101](#), [102](#))

The large amount of space we have just devoted to the national political scene in France is not to be interpreted in a way to detract from the continued independence of certain towns. Local citizenship was of ten zealously guarded. In Marseilles it was necessary to have 10 years residence, possess property and to have married a local girl before citizenship could be granted. (Ref. [103](#)) All through the feudal period in Europe, there was little or no sense of "country" or of patriotism, because each man's fidelity was given only to his immediate superior in the feudal chain. Even the word *patrie*, meaning "patriotism", was not used by French writers until this 16th century. (Ref. [104](#)) It is of interest that amid all the national strife, we find an early example of workers revolt against management in the big printing strikes in Lyons in 1539 and 1572. There were about 100 printing presses with about 1,000 workers who thought that new technology in updated presses would result in a decrease in the number of workers. So they beat up blacklegs, distributed leaflets and took their master to court and formed their own

society. In both strikes the workers gained little, but their actions certainly foreshadowed modern activities. (Ref. [105](#))

Only in this century did Paris become France's largest city, with 400,000 people and it was a trade center attracting job hunters and adventurers. The all important wood for construction and burning arrived in Paris in boatloads and giant floats, some 250 feet long and maneuvering these under the arches of bridges took great skill. Charcoal came from the forest of Othe via Sens. A great carrageway was constructed for the king from Paris to Orleans. (Ref. [106](#)) The French aptitude for high fashion was shown late in the century when the effeminate Henri III allegedly wore 6,000 yards of lace at the 1577 Estates General at Blois. By the end of the century the great market, Halles, had been reconstructed and restored to old levels of commercial activity, making a "renaissance" of a type. This must not be taken to mean that everywhere there was prosperity, however. In 1587 some 17,000 poverty-stricken people presented themselves under the walls of Paris. (Ref. [107](#)) In some periods Parisian food supply was very inadequate and some reports state that the dying people were eating dead dogs, garbage, rats, and even children⁹. There were eleven general famines in France in this century. (Ref. [108](#), [109](#), [110](#))

Ambroise Pare, surgeon to four kings, has been called the "Father of Modern Surgery". In military medicine he gave up the use of the cautery and used soothing dressings. Trained only by apprenticeship to a barber and then a wound dresser, he revolutionized the treatment of wounds. He wrote the treatise "A Universal Surgery" in 1561 and published his famous Ten Books of Surgery in 1564. (Ref. [112](#), [113](#)) The political decline of the Valois royal family may have been due to syphilis, which had been brought back by French soldiers after a military fray against Naples, in 1494. The French army also brought typhus back from Naples during another excursion there in 1526. In another vein, it is interesting that when Henri Valois was besieging Paris, just prior to his becoming King Henri IV in 1590, Parisians used carrier pigeons to keep in touch with the outside world, a custom in use at times since the ancient Greeks. (Ref. [114](#))

THE NETHERLANDS AND BELGIUM

Throughout most of this century the Lowlands were a part of the Habsburg dominion. In the first half, Antwerp, by virtue of its

crucial location, seemed to be the leading city commercially, with trade routes to Bergen, Stockholm, Reval, Danzig and all points south down even to Seville and Algiers. This was based greatly on a luxury trade, however, and with a shift of the European staple market and the rapid increase of seaborne trade, Amsterdam became the center of commerce. The sacking of Antwerp in 1576 by disgruntled Spanish soldiers, who had gone unpaid by the bankrupt King Philip II, certainly was a factor in this transition. (Ref. 115) Soldier and sailors, in those days, demanded gold for wages, not paper. Already in 1567, when the Duke of Alva arrived in the Netherlands with his army, the troops' pay and expenses were invariably settled in gold and gold alone. (Ref. 116)

The Dutch Baltic fleet brought food supplies, chiefly grains from the Baltic, to Amsterdam and by 1500 that fleet had already equaled that of the Hanseatic League. Their business was free of guild restrictions and the Italian bankers, the Fuggers, and English merchants centered their commercial activities there. The area thus provided a great source of revenue to king and emperor, Charles V, who responded by giving the Dutch reasonably good government except in the matter of religious liberty. (Ref. 117) The Netherlands, along with Italy, remained the focus of European industrial activity until very late in the century. Contrary to what one found in a princely court, as in France, the wealthy of Holland were deliberately modest in both dress and decorum, so they could not be identified on a city street. (Ref. 118)

NOTE: Insert Map 61. The Netherlands War of Independence

Erasmus, a bastard born in Rotterdam, but later a "citizen of the world", traveling, and living at times in England, France, Italy and Switzerland, was one of the original humanists. He became a priest and soon had a number of benefices all over western Europe, which supported him while he wrote, chiefly in Latin and usually adroitly criticizing the Church, including the concept of transubstantiation, as in his Praise of Folly. Somewhat anticipating Luther, the book was condemned only after Lutherism developed. After 1519 Lutheranism and Anabaptism came in from Germany. The latter particularly gained ground in Holland under the leadership of John of Leyden, with the idea of a return to the simple teaching of Jesus

and belief in the early return of Christ to earth. These concepts were mingled with communistic theories of equality, mutual aid and even "free love". Various Anabaptist uprisings and rebellions were put down brutally by the emperor's soldiers and finally the Spanish Inquisition machinery was imported to liquidate the group. The Spanish kept 50 pieces of artillery in the Netherlands, these maintained at a monthly cost of over 40,000 ducats. To move these units required almost 5,000 horses and nearly 6,000 wagons. (Ref. 119) After publicly burning Luther's books, the Papal Nuncio, Aleander, had Erasmus expelled from the theological faculty at the University of Louvain, claiming that he had paved the way for Luther by his Greek New Testament and his jibes at the Church. (Ref. 120)

In the middle of the century the Huguenots came in from France and Charles abdicated in 1555, giving the Netherlands to his son, Philip. The latter fought Protestantism in a bitter conflict that eventually broke the Netherlands in two. In these conflicts, known as the 80 Years War or simply as the Dutch Wars, starting in 1568, Philip's Spanish General Alva came opposite William the Silent, of Orange, a great Dutch leader. The Dutch began to win at the siege of Alkmaar in 1573 and in 1576 the "Pacification of Ghent" directed the withdrawal of all Spanish soldiers from the country as part of Philip's political bankruptcy settlement. However, after the Spanish king had made peace with the Turks and annexed Portugal he felt that his finances would be adequate and he renewed the war with the Dutch in 1583, only to eventually lose again. (Ref. 121) In the next century the Dutch were officially free. although Belgium remained under Catholic rule.

Professor William McNeill (Ref. 122) has emphasized the-very important contributions to the European military made by Maurice of Nassau, Prince of Orange (1567-1625), Captain-General of Holland and Zeeland after 1585. Maurice stressed three things:

1. The spade. He felt that the spade was mightier than the musket, in that by systematically digging ditches and erecting earthen ramparts, a besieging army could protect itself while continuing the siege
2. Systematic close order drill, including repetitive drill on loading and firing of weapons "by the numbers". McNeill believes that this, in itself, promotes psychological and sociological effects

that solidifies an army into a close, social, professional, responsive group

3. Division of army into smaller tactical units on down to platoons, where a single voice could control the movements of all the men

The chief architect of the new Belgium, once separated from Holland, was Alexander Farnese, Duke of Parma, a military genius who had led the Spanish forces in their attempted subjugation of the Lowlands and their frustrated attempts at crossing the English Channel under the hoped for protection of the Spanish Armada. The Dutch had prevented any potential landing barges from leaving the Belgium waterways, while the English navy chased away those ships of the Spanish fleet which remained afloat. Farnese, a grandson of Pope Paul III, was unable to conquer the northern provinces of Holland, but retained Belgium for the Spanish crown and the pope, in spite of the attempt by William the Silent to reconcile various southern social groups under a national program to be carried out by the Estates-General. (Ref. [123](#), [124](#))

At the end of the century Dutch sea power had increased to where it could challenge Spain and Portugal and they were raiding the overseas colonies of those powers. The defeat of the Spanish Armada and Spanish involvement in the French civil wars allowed the Dutch to drive the Spanish from the north and they were whittling away at the Portuguese monopoly on the spice trade. Both Holland and Belgium benefitted from a 16th century agricultural revolution, with efficient, commercialized farming systems developing progressively through the next three centuries. The Dutch used- the increased capital they obtained through trade to reclaim land from the sea, and they developed better methods of crop rotation.

It should be mentioned that Netherlanders dominated music in this century, with the great Flemish composers Josquin Deprez and Orlando di Lasso greatly responsible for the development of polyphony. Perhaps this Holland accomplishment compensates, in part, for its development of a method of distilling spirits, which with Dutch encouragement led to an increased drunkenness all over Europe. (Ref. [125](#), [126](#), [127](#), [128](#))

BRITISH ISLES

ENGLAND

This was a famous century in England, with the well known rulers Henry VIII, Queens Mary and Elizabeth and the Golden Age of English literature. The first quarter of the century was marked by an exceptional amount of unique local and foreign intrigue, deception, double-crossing and false conceptions. In the midst of this was one Thomas Woolsey, a priest whose origins we mentioned in the last chapter and who had by 1501 made himself chaplain to the Archbishop of Canterbury and was to rise to even greater heights from there. A second important factor was the continuation of some English territory on the continent in the marches of Calais, which had been English since it had been conquered by Edward 150 years before. It was a small area, 25 by 6 miles, but enough to justify the continued use of the title "King of France" by English kings and to maintain permanent military garrisons in Calais and Guisnes. To keep the English kings from further attempts on French territory, the kings of France paid 25,000 francs twice a year. Woolsey had some experience in the administration of Calais in 1503 and 1507 and was then taken into the service of King Henry VII.

In 1509 Henry VII died and his son Henry VIII became the monarch 2 months before his 18th birthday. He was a handsome, dashing young king, who reluctantly signed execution papers for some very unpopular tax collector-ministers of his father's regime. Even so, those tax collectors had made Henry VIII one of the richest kings in Europe and he was not long in taking advantage of this with elaborate banquets, tournament, jewels and dress.

Woolsey was already Dean of Lincoln and a second rank official in the king's government and in 1511 he was appointed a member of the Privy Council and by 1515 was a "Cardinal Sole"¹⁰ was supreme in the Council and in a month or so was made the Lord Chancellor of England. Like all medieval English kings, Henry VIII wanted the crown of France, in truth, and the time seemed ripe with France headed by an old, invalid king, Louis XII. Spain's King Ferdinand (and Henry's father-in-law) encouraged him and Burgundy, now under Emperor Maximilian, was also ready for war with France. Most of all, Pope Julius feared French designs on Italy and would look with favor on any aggression against them. Only Scotland could be considered an ally of France.

Preparations for large scale war were time consuming and expensive. In the first 2 years of Henry VIII's reign his total

government expenditure was 9,346 pounds but in the third year war preparations brought it up to 111,445 pounds. The whole financial arrangement, including loans from German and Flemish bankers, was handled by Cardinal Woolsey. In order to get the support of the English people it was publicly stated that by Easter, 1513 an English army of 60,000 would cross to Calais, while the Emperor Maximilian would invade France from the Netherlands, Ferdinand and his Spaniards would march into Navarre and Guienne and the pope with his Italian allies and Spanish armies in Naples attacked the French in Italy. But things were delayed and it was June 30th before Henry crossed to Calais and then heavy weather stopped everything. In the meantime James IV had invaded England from Scotland, to be defeated at the battle the English call "Branxton". Henry finally did manage to visit Margaret of Austria at Lille and besiege Tournai on the border of the Netherlands with 20,000 men. When this city fell, Woolsey was made Bishop of Tournai. But then Ferdinand double-crossed Henry and signed a truce with Louis XII and Maximilian's efforts were only "window dressing". Therefore, in secret, Woolsey and Henry, instead of invading France in 1514, signed a peace treaty at St. Germain-en-Laye, whereby Louis ceded Tournai to Henry and agreed to paying a million francs over 10 years, while Henry's beautiful, young sister, Mary, was to marry the aging Louis XII¹¹. This separate peace annoyed the emperor, King Ferdinand and Pope Leo X, who had succeeded Julius II. The good relations between France and England did not long exist, however, as the ambitious, young Francois I took over the French throne.

Henry and Woolsey did not pursue war against the new French king but used all diplomatic means to thwart him, including offering of financial aid to any power who would oppose him. By the time of this "cold war" of 1515 Woolsey was bishop or archbishop of any number of communities, with additional income internationally from various Spanish, French, and Imperial agreements so that he was becoming very wealthy. Some considered him "ipse rex" - the king himself. Having close ties with Venice commercially, the English king and the cardinal soon tried to woo that Italian city away from their French alliance, but were unsuccessful until 1523.

Undoubtedly most of us tend to associate Henry VIII only with obesity, gluttony and beheading of enemies and wives, but actually in his younger years he was apparently a capable, bright, ambitious

but well liked man. He was determined to make England the greatest artistic and literary center of Europe. Among the English intellectuals was Thomas More, the lawyer that we also mentioned in the last chapter. Initially one of the great humanists, More soon became a close friend of Erasmus of the Netherlands, who had made many visits to England. In addition to their humanist views they had in common the study of Greek and both wrote copiously in Latin and Greek. More's book **Utopia**¹², written in Latin, developed a most unusual hypothetical community, which has given its name as a new word in most languages. Partly as a result of his reputation from this book and for his success in some diplomatic activities in Flanders, he was soon invited to join the king's government. It was thus that Henry VIII, Cardinal Woolsey and Thomas More all eventually were joined together in the control and manipulation of England.

The extent of the pomp and ceremony of governments and royalty in the 16th century is not easily pictured today. In 1520, when Henry VIII crossed to Calais on another trip to confer near there with Emperor Charles V, he was accompanied by a retinue of 3,990 persons and 2,087 horses, while 1,175 persons and 778 horses accompanied his Queen Catherine¹³. All of the accompanying officials had dozens of servants and/or knights, while the Lord Legate¹⁴, the Cardinal of York, Woolsey, had 300 servants. Initially all of these individuals professed the Catholic faith and suppressed Lutheranism, including the burning of the heretics' books and a few of the heretics themselves. Henry, the king, even wrote a book, *The Assertion of the Seven Sacraments*¹⁵. No subject in Europe could even approach the power, wealth and status of Thomas Woolsey. He lived at Hampton Court with its 280 rooms and a staff of 500 servants, although this was only one of several of his palaces. It was this man who was involved in the unscrupulous diplomatic maneuvers which pushed Charles V and Francois I into a major, western European war-which raged, with only brief intervals, for nearly 40 years at a time when Christendom was threatened internally by Lutheran heresy and externally by the Turks in Hungary. Through the first 25 years of the century, Woolsey kept promising the emperor and the Spanish that he would invade and conquer France, but this never actually materialized in any degree and at the same time Woolsey kept up secret negotiations with France. In this period there were several papal deaths and each time

Woolsey tried to conjure, buy or blackmail himself into the papacy, but he always failed. Henry's only living offspring, his daughter Mary, was used in much international bargaining and intrigue - at one time offered to Charles V in marriage and other times to Francois I of France. While supporting the church, Cardinal Woolsey at the same time managed to get papal dispensation to confiscate any number of monasteries and nunneries to use the proceeds for constructions of 2 colleges of his founding¹⁶

In the meantime, after 1517 Thomas More underwent a profound intellectual and emotional transformation. His appointment to the Privy Council changed him from the humanist writer of Utopia to an instrument of Henry VIII's tyranny and the rise of Lutheranism in Europe turned him from an intellectual into a religious fanatic. Becoming a great persecutor of heretics, it seemed that he inwardly felt his original humanism was responsible for Lutheranism. He constantly wore a hair shirt beneath his outer clothing and regularly flogged himself with a knotted rope.

Finally in August of 1525, peace was agreed upon with France, the latter ceding no territory but agreeing to pay an enormous indemnity. England then changed sides in the struggle between France and the empire. Allied with the former, Henry could think of nullifying his 15 year marriage to Catherine (who had given him no male heir), since her nephew, Emperor Charles, was then the current enemy. The Lord Chancellor Woolsey spent the next many, many months trying to get the pope to accommodate Henry in this regard and Henry, himself, had already fallen in love with the young Ann Boleyn. No one knows exactly why Lord Woolsey fell from power, although there were many factors from which to choose - his failure to get the annulment or divorce for Henry from Catherine, the loss of public support because of the opulence of his life and immense wealth and a multitude of small offences and irregularities collected by- the king's secretaries over a 15 year period. At any rate, he was arrested on the charge of "praemunire", a grave offense just short of treason and punishable by life imprisonment. The charge was based on Woolsey's exercise of powers as Papal Legate, in which, as a representative of a foreign potentate he had usurped some of the king's powers. He was replaced as Lord Chancellor by Thomas More. Woolsey soon fell ill and for the first time in his life showed an interest in the spiritual side of religion. Although losing most of his estates and most of his

wealth, he was essentially pardoned by the king and simply banished to York. It is interesting to note that even in that predicament he traveled there with 600 gentlemen and servants and 12 carts carrying baggage. But he was arrested once again in 1530 and on his way to the Tower of London he died, apparently of intestinal hemorrhage, cause unknown.

The new Lord Chancellor spent all his efforts persecuting heretics. In his mind every ill in the world was caused by Luther - even the terrible sacking of Rome by the emperor's troops. As King Henry gradually became more and more infuriated with the pope, More alone remained in favor of Catholic policy. Parliament convened in 1529 to stay in session for nearly seven years, during which time it placed the church under royal authority, repudiating the Papal Supremacy and recognized Henry as the Supreme Head of the Church of England. More's objections to this eventually caused him to lose his head. (Ref. [131](#)) It was in 1531 that Henry assumed ecclesiastical leadership of the church and made Thomas Cromwell the chief administrator. The latter, in turn, sought to make the king supreme over every aspect of English life and was ruthless in his persecution of those attempting to remain Catholic. In spite of this, he too ended up beheaded. Between 1535 and 1547 all monasteries were dissolved by Henry and the spoils were distributed to minor nobles or business men who supported the king. The government did protect industry with tariffs and the manufacturers profited from cheap labor, so that the textile industry grew and made wealthy men, some of whom then became the new aristocracy of England. With the destruction of the monasteries, however, education almost disappeared and strangely enough, mead also disappeared. The monks of the monasteries had raised bees to get wax for votive candles and the mead had been made incidentally from the honey. The people of England were still surrounded by sheep, but now many only wanted cow dairy products. Their entire agricultural process was changing in the beginning of an agricultural revolution, with the development of the iron plow and soil liming, among other things. (Ref. [132](#), [133](#), [134](#), [135](#)) Technicians imported from the continent discovered in 1543 how to cast satisfactory iron cannon, thus cheapening the big guns to about one-twelfth their former cost. (Ref. [136](#))

But to return to Henry VIII, the reckless and vicious elimination of his various wives have been the source of many books, dramas

and histories and will only be tabulated here for record. Catharine of Aragon, mother of Mary the Catholic, was finally divorced after 20 years. Anne Boleyn, mother of Elizabeth, was beheaded. Jane Seymour, mother of Edward VI, died apparently of natural causes. Of the last three, Anne of Cleves was divorced and Catherine Howard was beheaded while Catherine Parr outlived the king. (Ref. [137](#)) In the last of his reign Henry was the most absolute monarch England had known. His late, terrible disposition may have been in part fashioned by his syphilis and a chronic leg ulcer. Upon his death in 1547 his son by Jane Seymour became Edward VI, when he was but ten years old, and he never did gain the strength to rule. The power of the throne was contested by Edward Seymour, Duke of Somerset and his brother, Thomas Seymour. The former was ruined by Kit's Rebellion, a Catholic peasant revolt, as the duke sympathized with the losing peasants against the nobles.

When Edward VI died in 1553 followers of his half-sisters Mary and Elizabeth battled to put one of them on the throne. Mary, a nervously ill, unattractive woman, whose only solace was her Catholic faith, became the queen. In the meantime Archbishop Cranmer had written the First Book of Common Prayer as a substitute for the missal and breviary of the defeated church. Although at first tolerant, Mary soon had him burned at the stake. The papal legate was brought back and persecutions of Protestants resulted in the name "Bloody Mary" for the queen. In the end the people were more ready than before to accept the "new" or Protestant faith. Mary married Philip, destined later to be Philip II of Spain, but never having been crowned by Parliament, he returned to Spain not long before Mary died.

Elizabeth became queen in 1558, restoring Protestantism. Royal agents then tortured Catholic priests; non-attendance at some English Protestant Church cost 12 pence a Sunday in 1559 and by the 1580s reached 20 pounds a month. (Ref. [138](#), [139](#), [140](#)) It was actually Elizabeth who signed the treaty of Cateau-Cambresis in 1559, officially dividing the spoils of the 60 year French-Spanish war, in which England had been intermittently involved. (Ref. [141](#))

In the last half of the century foreign trade began to be an important part of the English economy for the first time and in the last quarter, there was a great overseas expansion, first with piracy and then world-wide trade. The Merchant Adventurers was a wool and cloth, closed corporation which actually operated primarily

outside of England in Antwerp and later Hamburg. Joint stock companies including the Moscovy Company (1555), the Levant Company (1581) and the English East India Company developed. (Ref. 142) Sir Francis Drake, the most unscrupulous of the English pirates, left England in 1577 to sail through the Strait of Magellan and enter the Pacific, there harassing every Spanish ship, ransacking cities of Chile and Peru and finally sailing up past San Francisco and then across to the Moluccas and Java. He arrived home with great loot, to be made a hero, and gave hope to English farmers and shepherds who were resenting feudal taxes and tithes. That trip really stimulated the colony experiments of the next century. Drake was also one of the chief admirals at the time of the Spanish Armada, when the English fleet drove off the Catholic ships, which had been sent to facilitate a channel crossing of Spanish troops from Belgium. (See pages 780-782). The backbone of the potent English navy included 18 powerful galleons, varying from 300 tons up, excellently armed; 7 smaller galleons of 100 tons or more; and a great number of pinnaces. While awaiting the great battle, the crews were kept healthy on land, with fresh food and good water, not going to sea until absolutely necessary. (Ref. 143, 144) After the remnants of the defeated Spanish fleet sailed away in the North Sea, the English kept expecting a renewed attack and kept their ships manned and vigilant. As a result, typhus fever then killed the English sailors in greater number than had the battles.

A former junior officer of Drake's, Admiral Sir Richard Hawkins, later also raided about the Atlantic and around the southern end of South America, eventually to be taken prisoner by the Spanish. He had reported that 10,000 men under his command had died of scurvy and that orange and lemon juice were anti-scorbutic, but his home admiralty did not accept this for another century or more. (Ref. 145) It is said that Sir Walter Raleigh brought the potato to England from South America in 1588 and this probably had greater effects on the future of Europe and mankind than the sea battles with the Armada. (Ref. 146)

There is evidence that between 1/2 and 2/3 of all English households received some part of their income from wages. All through this century the Tudors depended upon unpaid justices of the peace, always land owners, to apply the laws. Failure to retain support of these land owners could result in revolts and one such uprising did occur against Elizabeth I in 1569-70 called the

"Northern Rising". But overall, the last of the century was tranquil and an age of many exceptionally brilliant writers, including Shakespeare, Spenser and Ben Jonson. In 1599 London merchants were so upset over the rise in pepper from 37 cents to \$1.00 per pound (these figures are the American equivalents) that they formed the East Indian Company to get their own pepper and thereby unwittingly started the British Indian Empire. (Ref. 147, 148)

SCOTLAND

At the end of the last century James IV had promoted the founding of Aberdeen University with the first medical school teaching in Britain and in 1506 he granted a royal charter to a College of Surgeons in Edinburgh. After the king's marriage to Margaret Tudor, daughter of Henry VII of England, border peace was obtained at least for while and government, justice and order were improved. Scotland then had a powerful navy and the largest and most modern cannon. After England's Henry VII died in 1509, English border raids resumed and when Louis XII of France pleaded for Scottish aid in his war against the Holy League and the pope, James first moved to the English border with an army of perhaps 20,000 men to meet an English force of about the same size. King James and some 10,000 Scots were killed.

Scotland then again had a child king, James V, less than two years old and who should have had his mother, Margaret Tudor, as regent. She was so for a few months, but when she married Archibald Douglas, the 6th earl of Angus, Scottish lords and Parliament, loyal to France, appointed John Stewart, Duke of Albany, to be regent. He was a grandson of James II, shrewd and intelligent and spoke nothing but French, having lived in France since the age of four. The factions of Angus, Albany and the queen mother all struggled for control and finally in 1526 Angus seized the king and kept him in confinement. John Stewart returned to France, where he was held for four years while Scotland again fell into violent anarchy, with lord against lord and clan against clan. Some semblance of order was restored after 1528 by the 16 year old king, who emerged in some way from his captivity. He obtained some money from the pope and a good deal more from Francois as a dowry for marrying his unattractive daughter. The lady obligingly died within two months and James V then married Mary of Guise, a

French widow. She brought a dowry of 150,000 livres. In spite of the king's attempt to promote law and order, great brutalities, fights and noble murders continued. In 1542 an English army again attacked Scotland; the Scots, failing to get French help, were not enthusiastic for the conflict; they lost and James V was killed, leaving an infant daughter who was to become Mary, Queen of Scots. (Ref. [149](#), [150](#))

In the middle of the century young scholars who had been educated in Germany and Scandinavia returned home, rejecting the Church of Rome. Among these was George Wishart, a zealous dogmatist and religious politician. Eventually he preached to large congregations, sometimes protected by an ecclesiastical notary, John Knox, carrying a great two-handed sword. With a charge of heresy, Wishart was strangled and then burned in 1546. Knox took up his reforms and preaching and was one of a band that killed Cardinal Beaton. After a long sojourn in Switzerland, where he had been strongly influenced by the Calvinists, Knox got a reformation parliament to repudiate the supremacy of the pope, forbid the celebration of the Latin mass and approve a Confession of Faith. He stated that soon the English would send an army to help. Instead came a French fleet, which took Knox prisoner for 8 years, during which time he was a galley slave. When he was finally released, he returned as a noisy rabble-rouser, advocating war and murder, drunk with a self-righteous passion and responsible for much of the blood and bigotry that was to follow. He glorified the Old Testament, claimed prophetic powers, rebelled against women rulers and felt that all should be killed who did not hold his beliefs.

Meanwhile war erupted again in 1548 when the Duke of Somerset took an army into Scotland, ravaging the countryside with the announced purpose of arranging a future marriage for the little Queen Mary with the Prince of Wales. The Scots resisted, with the help of the French army which came with a promise of Mary's betrothal to the dauphin of France. When the English withdrew in 1549, the French army stayed for another 8 years to protect Catholicism and finally the queen did marry the French heir, while she still ruled Scotland from France, under the regency of her mother, Mary of Guise. The new Protestantism was tolerated for awhile, but in 1559 the queen mother decided to crush the new faith. In 1561 the real queen of Scots came home from France, a widow at 18 years of age, tall, beautiful, Catholic and claiming not

only the Scots but the English throne as well, thus becoming a thorn in the life of her cousin, Elizabeth. Either through a French variation or actual misspelling, her surname became changed from Stewart to Stuart. In 1656 she married again, this time to 19 year old Lord Darnley, a great grand- child of Henry VII. Not long after fathering Mary's child, the future James VI, the young groom was strangled. Subsequently the queen was made a captive for a year but ended up marrying her captor, the Earl of Bothwell. Captured again by Protestants she was held in Edinbrough, called a whore and declared ripe for a burning. Forced to abdicate her throne, she named the Earl of Moray as regent for her small son while she escaped into England. Freedom was short-lived, however, as the Elizabethan court imprisoned her again and eventually executed her in 1587.

In the meantime John Knox had died in 1572 and his place at the head of the Protestant movement in Scotland had been taken by Andrew Melville, who came from exile in Geneva to be principal of Glasgow University. An unbelievably strict, rigid Protestant morality doctrine descended on the Scottish people. In keeping with Scotland's long history of treachery and deceit and violence, the young King James VI was abducted in 1582 and confined for about a year. Subsequently he did rule for the remainder of the century, marrying a Danish princess and arranging to be the successor of Queen Elizabeth on the throne of England in the next century. (Ref. [151](#), [152](#))

IRELAND

When Henry VIII had completed his separation from the Roman Church in England he bade the Irish Parliament to acknowledge him also as head of the Irish Church. It accommodated him and the spoils of the monasteries and church properties were given to various Irish chieftains who thereupon became nobles of the English king. The clan system was abolished and Ireland was declared a kingdom, with Henry VIII as its king, in 1541. But when the king died, five years later, the Irish people remained Catholic, a factor which bolstered them in their later struggle for freedom. Irish rebels, including Red Hugh O'Donnell and Hugh O'Neill continued to fight for Irish independence, and the O'Neill badly defeated an English army at Yellow Ford in 1598. Spain even dispatched 4,000 troops to aid in this rebellion, landing at Kinsdale on the southern

coast, but they were immediately evicted by English troops. In this century Ireland became a major exporter of salted butter and salt beef, the latter being used on shipboard and as food for the poor and the slaves. Salt beef even became a standard winter dish in England. (Ref. [153](#), [154](#))

WALES

There had been peace between England and Wales since the ascension of the Welsh Tydder (Tudor) King Henry VII and in 1536 Wales became officially incorporated into the English nation.

SCANDINAVIA

"The Baltic is a vast, almost land-locked, frequently ice-bound area of water covering over 166,000 square miles. In early modern times it provided the great bulk of the timber, tar, pitch, hemp and flax for the ships with which England, Holland, France, Spain and Portugal were building their world trading empires; also much of the grain needed to insure the rest of the continent against poor harvests, and the copper for its everyday money."¹⁷ Furthermore, the Baltic and the adjacent Gulf of Finland were almost completely under the control of Scandinavians during the 16th century. In the first quarter, all Scandinavia was, furthermore, under one king, in the Union of Calmar. Finland was a part of Sweden and all were subservient to King Hans (Dane) as the century opened. After Hans' defeat by the Frisians in 1500 the various segments of Scandinavia gradually began to separate again. At the end of the century all Scandinavia was still relatively sparsely settled, with only about 1.5 inhabitants to the square kilometer (compared to 40 in the Netherlands, for example) and remained only on the margin of European life. (Ref. [155](#))

NORWAY

Norway continued the docile partner of Denmark throughout the remainder of the century. The country did become an exporter of copper to Europe proper. (Ref. [157](#))

SWEDEN (See map in section on SWEDEN in 17th century)

In 1501, after King Hans had been defeated in -Frisia, the Union of Calmar was not officially dissolved, but it was simply "not in force"

and Sten Sture was again considered Regent of Sweden. When Sten threw the Archbishop of Sweden into prison in 1520, Christian II, successor to Hans, took an army to Sweden and the Danish army, backed by some Swedish nobles, took the whole country by force. In Stortorv Square in Stockholm, after a celebration, Christian II had his soldiers murder 82 nobles of Sweden as heretics. A son of one of those so killed in this "Stockholm Bloodbath" soon thereafter got help from the peasants to assemble an army and within two years had all of Sweden under his control. This man, Gustavus Eriksson, was then crowned King of Sweden as Gustav Vasa, in 1523 and the Union of Calmar truly ended. During his reign a financial crisis developed and when the pope replied to the king's appeal for funds only in a very meager way, the king began to favor the Protestants. He commissioned a translation of the Bible into Swedish and this helped not only to transform the national religion but to promote the language itself. As in England, the king began to take over church property for his treasury and insisted that the Diet, or National Assembly, cut out the pope, eliminate confessions and give all the church property to the crown. This was another triumph of the state over the church. Gustav I Vasa was the father of modern Sweden. During his reign iron mines were expanded, trade increased. copper exported and soon there was great prosperity. Even the peasants manufactured iron, but only during the rise of the spring waters when water power was available to help in the operation of the furnaces. (Ref. 158) With all of this, we must not lose sight of the fact that the vast expanses of Sweden were still half-empty, with only a few settlements in a vast territory. Traveling merchants distributed horse shoes, nails, pins and religious books, among other things. (Ref. 159)

In 1544 the crown's status was changed from elective office to an hereditary monarchy so that Vasa's sons succeeded him, Eric XIV (1560-68) and John III (1568-92). During this period Reval, a previously independent Hanseatic port, now threatened on all sides put itself under Swedish protection, but by 1563 the entire area burst out in the Seven Years' War of the North. Sweden generally held pretty well in this struggle, although she had to pay ransom to Denmark for the return of Alvsborg and by 1581 she was becoming a significant factor far beyond the Baltic. John III married a Polish princess and his son ascended the Polish throne in 1587 as Sigismund III only to also become King of Sweden upon his father's

death in 1592. He was deposed from the latter job, however, in 1599 with his Lutheran uncle taking the crown as Karl (Charles) IX. In the meantime, at the final settlement of the Seven Years' War of the North, in the Peace of Teusina, Sweden added Narva and almost all of the country of Estonia. The Gulf of Finland thus was a Swedish waterway. (Ref. [160](#), [161](#), [162](#))

DENMARK (Please read the remarks about Sweden, above, also)

Although Denmark's Christian II lost Sweden, he had a constructive reign within his own country. The Reformation movement there was led by the monk Poul Helgeson and was approved by Christian. Certain nobles and clergy rebelled, however, dethroned the king, made Frederick of Schleswig-Holstein monarch for while, but finally, after much fighting for the throne, in 1536 the National Assembly crowned Christian III, established a Lutheran State Church and confiscated all episcopal and monastic properties for the king. Norway and Iceland accepted Christian III and his Protestant legislation and the triumph of Lutheranism in Scandinavia was complete. Later in the century King Frederick II attacked Sweden and their then King Eric XIV and this war went on again as the Seven Years' War of the North.

Tycho Brahe (1546-1601), the famous astronomer of this period, was given an island in the sound off Denmark for his home and laboratory. About 1600 Denmark exported some 100,000 cattle each year through Lubeck and Hamburg. (Ref. [163](#), [164](#))

FINLAND

Finland, as a part of Sweden, was given the Lutheran faith by Gustavus I Vasa. 79% of Finns today are still, at least nominally Lutherans. Helsingfors (Helsinki) was founded in 1554. (Ref. [165](#))

OVERSEAS SCANDINAVIAN CENTERS

The Norwegian settlement of Iceland in this 16th century took the brunt of what has been referred to as the "Little Ice Age", with Atlantic ice sheets extending well south of that island, interrupting shipping and destroying the Icelanders agricultural base in Greenland. In Iceland proper, the previous wheat-based economy gave way to sheep and cattle and life became very hard. Between 1500 and 1800 there were 37 years of famine in that country. Very

important to Iceland is the physical fact that a mean annual temperature drop of only two degrees Fahrenheit reduces the growing season by 40 days or 25% and the drop in the average temperature during the growing days further reduces the crop. (Ref. [166](#))

EASTERN EUROPE

For centuries there had been a correlation between traffic on the Baltic Sea and prosperity of Eastern Europe. After 1581, when Russia lost Narva in Estonia, as noted elsewhere, Moscovy diverted its trade to overland routes and the Baltic trade diminished, only to be refurbished when the Thirty Years War cut the land traffic through Central Europe. Perhaps in connection with the above, huge areas from the Baltic to the Black Sea reverted to a "second serfdom"[18](#). The peasant was being ever more firmly attached to the land and he was losing mobility and the right to free himself. Gradually through the century, the days of compulsory labor were increased in Poland, Hungary, Livonia and Moscovy. The need for food and raw materials to be shipped to the West and the decline of cities and rise of feudal lords all played a part in this. (Ref. [167](#))

SOUTHERN BALTIC AREA

As in the past, Sweden, Denmark, Russia and Poland all competed in this century for domination of the Baltic area. Of the original Balt tribes, the Letts had now become Latvians and the Curonians were Lettonized in this century. The Prussians were extinct as a people, but the Lithuanians remained strong and numerous. Until the middle of the century the Teutonic Knights held Livonia, Estonia and Courland and their stories thereafter will be taken up in a later paragraph. After somewhat of a poor start in the century, with the loss of the left bank of the Dnieper in 1503 and the city of Smolensk in 1514, both in wars with Russia, Poland-then enjoyed a Golden Age under Sigismund I and II, up to 1572. Both rulers were men of culture and spirit and gave religious thought and worship a complete freedom. Although there were interval wars with other powers for control of the Baltic, Poland prospered and remained a major European state. The power of the lesser nobility continued to grow, however, and all efforts of the kings to strengthen royal power, reform the government and establish a more modern army

and administration met with failure and Poland gradually became transformed into a republic. Lithuania and Poland continued to be closely associated and the kings of Poland were usually also the Grand Dukes of Lithuania. As was true all across northern Europe, beer was consumed in large amounts - the peasants drinking three liters a day. (Ref. [169](#))

The Livonian War began in 1557 and was an armed dispute involving all the powers bordering the Baltic. As the Russians moved in from the east, Sweden took Estonia and the Danes acquired part of Courland. In 1561 Poland took part of Livonia and insisted on the Polish language and laws and the Catholic religion, but within two years Ivan the Terrible of Russia had re-conquered this area. Russia and Sweden continued the battles until 1582 with Narva falling to the latter in 1581, but the Pole's fighting had pretty well ceased by 1571, probably due to their preoccupation with their relationship with

Lithuania. In spite of opposition by the Lithuanian common people, Lithuania officially merged with Poland in 1569. Subsequently the two nations had a common sovereign and a common Diet, although Lithuania retained some separate administration and army. Russian threats to Lithuania were probably the deciding factors in forcing this union, because Russia had already taken the Ukraine territory, including Kiev. By the Polish union, Lithuania apparently was able to save White Russia from Ivan. (Ref. [170](#), [171](#))

The Reformation filtered in to Poland from Germany and Switzerland and both Lutheranism and Calvinism advanced rapidly, with the National Diet in 1552 voting religious freedom for all faiths, based on "The pure Word of God", legalizing clerical marriage and communion in bread and wine. The Unitarian movement, denying the Trinity, also became strong. But in 1564 the Catholics brought in the Jesuits and these trained and devoted men secured strategic places in the educational system and turned the Polish people back to Catholicism. In 1595 even most of the Orthodox bishops of the Ukraine and Lithuania had also accepted union with Rome on condition that they retain a Slavonic ritual. Thus, the "Uniate" Church came into existence. (Ref. [172](#))

One of the important products of Poland was lead and by this century the mines were producing between 1,000 and 3,000 tons a year. But money was necessary to construct the long, sloping

tunnels and the horse powered pumps necessary to drain water of the depths and this brought in those who had capital. Thus 1/5 - of the mines fell to King Sigismund Augustus, 1/5 to the nobility and related people and 3/5 to the merchants of Cracow. (Ref. 173) Poland exported some 50,000 head of cattle to Central Europe each year. (Ref. 174)

For 2 years after the death of Sigismund II and the end of the Jagellon Dynasty, Henri of Valois was the elected king, subject to the new pact which gave the nobility the right to limit the royal power. In 1574 Henri went back to France, however, and finally the Poles elected Stephen Bathory, whose wife was a Jagellon. He ruled well from the standpoint of foreign affairs and war, dominating the Baltic until 1586, as he held the Russians in check. He was followed on the throne by Sigismund III, son of King John of Sweden, an ardent Catholic educated by the Jesuits. He squandered all of Poland's energy in wars with Sweden because of his claims to the Swedish throne. (Ref. 175)

RUSSIA (Please see map in section on RUSSIA in 19th century C.E.)

The search for a Baltic outlet was a critical issue throughout this century. Ivan III died in 1505 and Basil III assumed power. In 1511 Pskov succumbed to the fate of Novgorod and was incorporated into the state of Moscow and by 1514 there was war with Poland. Even at this early date Moscow and the Habsburgs of Vienna had discussed a possible partition of Poland, but the latter was too strong a military power. In the war just mentioned, Russia used foreign officers and up to date artillery and did capture Smolensk from the Poles.

The Orthodox Church had developed a schism: (1) Abbot Joseph Volotsky held that the state was under obligation to preserve the sanctity and purity of Jesus. (2) Abbot Nil Sorsky held that the faith was not to be enforced by police measures and the state had no authority in spiritual affairs. Joseph said monasteries should own property, Nil said "no". Joseph was for high ritual and temples, Nil said the heart was more important than the temple. Basil III divorced his first, barren wife and took another with Joseph's blessings and Nil's condemnation. Thus, Basil sided with the Josephians and they became the victors, loyally serving the state. (Ref. 176)

Ivan IV, son of Basil, became the Russian sovereign in 1533. The Tatars still held Kazan, Astrakhan and the Crimea, but there was now reduced nomadic pressure so Ivan attacked and after a long siege he not only won but then massacred the people of Kazan. This eastern expedition gave Muscovy control of two vital rivers, the Kama and the Volga, opening the way to the Caspian Sea and trade with Persia beyond. (Ref. [177](#)) The Cossacks of the Don (but not those of Kiev, now under Lithuania) now also bowed to Moscow's rule.

Ivan's next project was to try to gain access to the Baltic through Livonia and it was this that precipitated the 25 year Livonian War involving Sweden, Denmark and Poland as well as the Livonians, themselves. He did temporarily get a window on the Baltic at Narva in 1558 but it was closed to him again in 1581. Furthermore, trouble then developed at home, with plots, counter-plots, defection of key people to Poland, etc, so that Ivan had to start a revolution of his own. First he engineered a terrible purge of the nobility whom he thought might be against him, endeavoring to elevate a new class to political power. Actually the Orthodox Church remained the real ruler of Russia. Ivan was a barbarian struggling to be civilized, but failing. He gave his people a demoralizing example of pious cruelty and uncontrolled passion and well earned the name of "Ivan the Terrible".

One of the few constructive aspects of this reign may have been the church Council of Stoglav in which many reforms were instituted by the counsellor Sylvester, who later compiled a book for instruction of the people in morality and general education.

The Crimean Tatars had been only temporarily controlled and in 1571 they again sacked and burned Moscow. At that time they were vassals of the Ottoman Turks, but their only duty to the Turks was to bring the Khan some 20,000 to 30,000 horsemen, when summoned. The Poles under Stephen Bathory invaded Russia also in 1579, regaining much border territory in Livonia, although they could not retake Smolensk. It was the Swedes who took Narva in 1581, cutting off Russia again from the Baltic. In 1584 the Cossacks invaded a Siberian Khanate and opened up the eastward movement which was comparable to the later westward migration of the American colonists. (Ref. [178](#), [179](#), [180](#))

Italians, Germans, Dutchmen and Englishmen penetrated Russia in this 16th century and one of the crucial issues was how to cope

with these Europeans, much as it is today. With the arrival of German coins and ingots money began to be minted regularly, although still on a modest scale. (Ref. 181) A second big problem was control of the lower classes. In 1592 the Moscow government ordered the registration of all peasants and 5 years later decreed that any peasants who deserted could be returned to their former lawful masters, marking the initial steps toward curbing of peasant freedom, with the bulk of Russia's population turned into serfs. (Ref. 182, 183)

Ivan the Terrible killed his ablest son and bequeathed the throne to a weakling whose incapacity invited civil war. The actual control of the government fell to Nikita Romanov and when he died, by his brother-in-law Boris Godunov, with the latter being elected to the throne by the National Assembly in 1598. Although a novice in politics, Godunov's military record was an outstanding one. In the meantime, the Russian Church had become entirely independent from Constantinople, as the first Patriarch of Moscow was created in 1589. (Ref. 184)

North of the Ural Mountains the Eurasian Nenets herded reindeer and hunted seals and whales in the Arctic Ocean. Prosperous herders of ten had two or more wives, who busied themselves setting up conical tents and dressing skins. In this and the next century, gun-bearing European settlers and hunters killed enough reindeer to start a decline in the number of the wild herds.

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1. Quotation from McNeill (Ref. 24), page 79
2. McNeill makes the interesting suggestion that syphilis may have been a transition from the old, endemic disease, yaws. (Ref. 33)
3. Quotation from Rodes (Ref. 55), page 137
4. Zapola was actually supported against Ferdinand by Henry VIII and Cardinal Lord Chancellor Woolsey, in order to annoy the emperor. (Ref. 60)
5. This date is that of the Gregorian calendar, already adopted by the Spanish, but not by the English
6. Regarding the smallness of this potato, see Section VIII, C, SOUTH AMERICA, this chapter
7. This "displacement tonnage" is an entirely different measurement of ship size than the carrying capacity tonnage we have mentioned in the note on page 742 as pertaining to the number of "tuns" of wine in the hold
8. Henri II later took Catherine de Medici for his wife, but retained Diane as his mistress
9. Trager (Ref. 111) on his page 201, says that this information was found in the diary of the lawyer, Pierre de L'Estoile
10. That is, he was appointed individually, without waiting for the usual time of election of cardinals
11. Within two months after the marriage, Mary was a widow
12. The full name was The Best State of a Commonwealth and the New Island of Utopia. "Utopia" was coined from the Greek word for "nowhere". (Ref. 129)
13. Catherine of Aragon was the daughter of King Ferdinand and Queen Isabella
14. By this time Cardinal Woolsey was also the Papal Legate to England
15. Although the authorship of this has been debated in the past, it is now pretty generally acknowledged that the king did write it. (Ref. 130)
16. One of these persists today at Oxford as Christ Church
17. This quotation taken from The Times Atlas of World History (Ref. 156), page 188
18. The term is Braudel's (Ref. 168), page 265

Europe: A.D. 1601 to 1700

Europe

In the early century, inflation was such that prices were four times what they had been between 1525 and 1550. (Ref. 1) Three great powers contested for dominance – the Ottoman Empire, the Spanish Empire, and France, under Louis XIV and Richelieu. Each had a mass of about 17 million people. (Ref. 2) In spite of the presence of these great monarchies, there were still areas all over Europe from southern Italy to Scandinavia and from Scotland to Auvergne where primitive social enclaves persisted, with hundreds of dialects and local, semibarbaric, religious cults. Attempted control of these numerous pockets sapped the resources of the great powers, similar to the drain on the Roman Empire when it was ringed with barbarians. In addition, after about 1620 the entire continent suffered from food shortages as the population increased to about 118 million by 1648 and the result of this was often political instability. Even by 1640, rebellion was everywhere. Although this is often called the century of scientific revolution, this was completely irrelevant to the mass of Europeans as they squandered most of their energies in massive wars. During the whole of the period there were only seven years of peace in Europe. All of the people tended to revolt against the powers of princes and kings over their bodies and properties and to protest against taxation, interference with trade and arbitrary imprisonment. Over most of Europe the peasantry represented vast numbers of people and in one way or another they were almost always in revolt, with occasional open rebellion, as in Naples in 1647. In Orleans, out of an active population of almost 120,000 there were over 67,000 wage earners, but this did not signal great productivity. Many districts were over-populated with great numbers of unemployed.

Vagrants were universally put under lock and key, usually in work-houses. (Ref. 3)

The last quarter of the century saw the establishment of responsible parliamentary government in most areas. By 1700 the old north-south trade axis had swung almost 90° and ran east-west from England-Holland to Saxony, Bohemia and Silesia. Population growth at the end of the century had been slowed not only by war and famine but also by plague, so that shortly after the turn of the century (1713) the population had dropped to about 102 million. (Ref. 4, 5, 6, 7) Still, Europe remained in a favored position when compared to other civilization, particularly in regard to food. Europeans consumed great quantities of meat. Water-mills supplied the chief energy and were owned and supplied by the lord of the manor, while the peasants contributed their labor. The mill, which ground grain, was thus the essential tool of the manorial economy. Otherwise the 17th century civilization was one of wood and charcoal. Buildings, machines, wine-presses, plows and pumps were all made of wood, with a very minimum of metallic parts. Fortunately Europe was well-endowed with forests. Iron, although available, was still in short supply. (Ref. 8) Wigs and then powdered wigs came into fashion in this century despite initial objection by the church.

Practically all the armies of Europe had adopted the military reforms initiated at the end of the previous century by Maurice of Holland. (See page 792). This resulted in obedient, responsive units of soldiers able to function efficiently in any part of the globe. The new drill and techniques spread from officers trained at Maurice's Military Academy, which was founded in 1619, first to Sweden, then to the northern Protestant European states and finally to France and eventually Spain. (Ref. 9) (Continue on page 942)

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

Continuing their take-over of Mediterranean islands, the Turks conquered the Cyclades and all of Crete except two off-shore Venetian forts. The Hospital of the Knights of Malta became a kind of teaching institution, treating patients from all over Christendom. In 1653 Louis XIV of France gave the Knights four Caribbean islands, but they soon sold them to the French West India Co. (Ref.

10, 11) (Continue on page 944)

GREECE AND UPPER BALKANS

Greece and most of the Balkans were under Ottoman rule although several Christian communities had survived and there was some degree of local autonomy by the prelates of Greek and Serbian churches. Many of the men of those western Christian Balkans fought as mercenaries, either for Venice or Constantinople. The Turks helped Istran (Stephen) Bocskay drive the Austrians out of Transylvania in 1605 and by the Austro Turkish Treaty of Zsitva-Torok, this area was left to his control. (See also HUNGARY, this chapter). (Ref. **12, 13**)

Commercial agriculture became increasingly important with cotton, tobacco, wheat and maize produced by entrepreneurs, a feature which led to the diminution of military land-holding. After 1638 there was no more recruiting of Christian boys for Ottoman administration and the army and this, in turn, meant a widening gap between Christian and Moslem, landlord and peasant, village and town. Eventually this shift in relationships destroyed the Ottoman polity. (Ref. **14**) Travel in the Balkans could be precarious and in open country travelers deployed their carriages in a circle at night, with everyone ready for defense, just as in the American west, centuries later. (Ref. **15**)

The great Venetian Admiral Francesco Morosini captured the Peloponnesus and laid siege to Athens in 1687. One of his shells hit a powder magazine which the Turks had stored in the Parthenon and it blew up, reducing the structure to its present state. (Ref. **16**) The City of Senj of Croatia was the home of the Christian, Uskok pirates and Venice had to make war against them from 1613 on in order to protect its trade and its coastal regions such as Cattaro, Corfu and Levkas. We have noted above that near the end of the century Albanians became the grand viziers of Turkey. (Ref. **17**) (Continue on page 946)

ITALY

Italy continued in an age of invasion with the monarchs of Europe and petty Italian princes fighting over its territory. Most of the old ruling families of the city-states were dying out and Italy had little history of its own in this century. Even Venice fell into some decline and only in its war with Turkey was there some vestige of its earlier

glory. The wealthy class of that city-state now abandoned trade and put all its resources into farming. Still, thanks to foreign shipping, Venice remained a very busy port. It was the rise of agricultural prices that drove Venetian capital to the land. (Ref. 18) Genoa lost its island of Corsica and for reasons still debatable, its credit collapsed. Braudel (Ref. 19) believes that it had to do with a change in the discount rate of bills of exchange. A bill had to acquire value as it went from country to country, or someone lost all. The plague obviously did not help. The Black Death killed a million people in north Italy between 1628 and 1631 and in Genoa there were perhaps 700 rich nobles left out of about 80,000 inhabitants. In Venice there were only 14 or 15 wealthy patricians left who were capable of holding high state positions. Florence barely existed, being little more than the Grand Duke's court. He had seized everything - money, the right to govern and distribute honors. (Ref. 20) In spite of all these troubles in Italy, active Jewish colonies survived for many years in Piedmont, Venice, Mantua and Ferrara. Jews even launched Leghorn on a prosperous new career in this century. (Ref. 21)

One of Italy's great men, Galileo Galilei, astronomer, experimental physicist and mathematician was throttled by the Inquisition, still being promoted by the Church. The outstanding anatomist of the age was Marcello Malpighi, born at Bologna and teacher of medicine there for 25 years. His descriptions of capillaries, Malpighian tufts and corpuscles are only a few of his multitude of important anatomical discoveries. (Ref. 22, 23, 24, 25)

The island of Sicily remained rooted to the past, pretty well untouched by the machinations of politics and commercialization seen in the market society of most of Europe. (Ref. 26) (Continue on page 947)

CENTRAL EUROPE

Most of central Europe was still a part of the Holy Roman Empire, which, however, consisted of several more or less separate parts. First there was a loosely bound union of almost completely independent German states, seven in number, each ruled by an "Elector" and nominally subject to the Habsburg emperor, who was routinely elected by those Electors. The Protestants of the north

gave no support militarily, unless the emperor paid for it. Secondly, there was the true Habsburg Empire, which consisted of the Archduchy of Austria, the Kingdom of Bohemia-Moravia, Silesia, the Kingdom of Hungary and other Balkan territories conquered from the Turks. The Habsburgs also had claims to the throne of Spain with all its possessions in Europe. (Ref. 27) But from 1618 to 1648 the terrible Thirty Years War raged, disrupting the entire continent. This was basically a war of mercenary soldiers, and in lieu of pay they lived on the country, with resulting robbery, pillage and outrage. Neither side won, but hostilities finally stopped with the Treaty of Westphalia. The trouble started in the previous century when Ferdinand took over the German and Austrian half of Charles V's Habsburg Empire. The northern German barons protested against that Catholic ruler, and the conflagration started as a civil conflict of Protestant, northern Germany against Catholic, southern areas. It very soon became complicated, however, by the intervention of various other domestic and foreign elements. Some feel that foreign interference and pressures on the German princes actually precipitated the conflict. It had some similarities to the civil war in England and the War of the Fronde in France, in that in each case the crown was Catholic and the recalcitrant nobles tended to be Protestants. It is to be re-emphasized that the Thirty Years War was brutal and destructive, involving a semi-guerrilla force, which plundered, raped and killed wantonly. It was a series of bloody campaigns in which civilians often suffered more than soldiers. The following material, giving more of the actual details of this war, has been taken chiefly from Roden (Ref. 28), unless otherwise indicated. (Continue on page 948)

THE THIRTY YEARS WAR

UNDERLYING CAUSES

To some this was primarily a religious war in defense of one of the three faiths involved. The Calvinists fought for recognition as co-equals with Lutheranism and Catholicism. For most rulers it was a political struggle; for the Habsburgs it was a struggle to retain some measure of control over the various political-units in Germany and to keep some semblance of empire. It was also a civil war among jealous territorial princes and a dynastic struggle among ruling families such as the Wittelbachs in Bavaria. It was a predatory war fought by mercenary generals for fame, power and booty. Finally, it

was an international war for territorial and economic gains, including efforts of Dutch, - Spaniards, Swedes, Bohemians and French.

STAGES OF THE WAR (Named for Habsburg opponents in each period)

BOHEMIAN PHASE

Frederick V of the Palatinate became a Calvinist Bohemian king and fought Habsburg Ferdinand II, but he got poor support and lasted only one winter. Ferdinand occupied and completely subdued all of Bohemia, outlawed the Czech language and replaced the elective kingship by the hereditary rule of the Habsburgs. The remarkable achievements of the Bohemian Baron von Wallenstein during the war years are detailed in subsequent paragraphs and the CZECHOSLOVAKIA section of this chapter.

DANISH PHASE

Christian IV of Denmark responded to Franco-English pressure and invaded lower Saxony, but was eventually defeated by both General Tilly and General Wallenstein, of the Catholic imperialist forces. In fact, by 1630 imperial and Catholic power had reached its greatest mark and the German princes, Catholic and Protestant alike, began to worry about their own rights and powers.

SWEDISH PHASE

After Sweden's Gustavus Adolphus finished his Polish War, in which he obtained the Lithuanian coast and bases in Prussia, he swung around and into Germany, probably for both religious and territorial reasons. After defeating Tilly near Leipzig, Gustavus, who spoke fluent German (learned from his mother), became a German hero and Protestant forces flocked to his side. The Swedes moved far into south Germany and even occupied Munich. In 1632, in a battle with Wallenstein, now restored to power again by the Habsburgs, Gustavus Adolphus was killed while leading his victorious forces. Swedish power was at once dimmed by the disappearance of this forceful king-general and his minister, Oxenstierna, could not carry the field much longer. Furthermore, after Wallenstein was murdered by some of his own sub-generals, the Catholic forces again became more active and forced the Swedes out of southern Germany. Then Saxony made a separate

peace with Emperor Ferdinand III, in the Peace of Prague (1635). The terms again gave much power to the emperor, and although accepted unwillingly by most of the German princes, France could not acquiesce in this increase in imperial power.

Map taken from Reference 97

FRENCH PHASE

So, in 1635 France declared war on Spain and Austria, and began full scale war in the Pyrenees, in the north against the Spanish Netherlands and in the east against Spanish and Austrian possessions in Germany. In the long run Swedish-French power prevailed almost everywhere and Germany was thoroughly exhausted. Debates about peace drug on in Westphalia for 4 years while armies continued to fight, with the final peace concluded in 1648.

THE PEACE OF WESTPHALIA

The war left the basic Habsburg Empire intact but destitute. Only the territorial lords seemed to get a clear-cut victory. Prussia emerged as a strong state and Bavaria gained territory and retained the Upper Palatinate. While most German cities were ruined, Hamburg actually prospered by taking over the previous function of Antwerp as a center of refuge for all exiles, after the latter city had fallen to the Spaniards. (Ref. [29](#)) No religious freedom remained in the Habsburg hereditary lands. France and Spain remained at war for another 11 years after the treaty, but France, along with Sweden, reaped the most important benefits. Toul, Metz and Verdun were all given to France, along with other valuable cities and territories in Alsace which gave a bridgehead whereby France could move forces into Germany at will. Sweden got western Pomerania, Stettin and many harbors, keeping good control over northern Germany. Holland and the Swiss Cantons were permanently free.

Following the Treaty of Westphalia the histories of Germany and Austria definitely diverge, with various German states remaining definitely independent, although soon to be dominated by Prussia. The Habsburgs confined their interests and power to the soon to be formed Austro-Hungarian Empire. The war had cut the population of Germany from 20,000,000 to 13,500,000 and there was a dearth of men. At the Congress of Franconia in Nuremberg in 1650 a

resolution was adopted that every man should be allowed two wives and every male should be so reminded from the pulpits. Taxes were imposed upon unmarried women. By 1700 equality of the sexes had been restored and there were again 20,000,000 Germans.

The many Jews in Germany led a precarious existence in this century. In Frankfort in 1614 a Christian crowd forced entry into a ghetto and after a night of plunder and destruction, compelled 1,380 Jews to leave the city. In general the higher classes of people and clergy were tolerant, but the lower clergy and masses were easily stirred to a frenzy of hate. After the Thirty Years War persecution lessened and the Jewish settlements expanded rapidly.

The second half of the 17th century after the Treaty of Westphalia presents an entirely new picture in Central Europe and we shall now examine that situation in more detail.

GERMANY

Although still divided into many separate states, overall the peasants of Germany occupied a middle ground between the serfs of the east and the freer life to the west. Their slow emancipation was an important reason for the slow appearance of the industrial revolution in Germany. The food situation was helped greatly as the potato, yielding 4 times as much carbohydrate per acre as wheat, reached even eastern Germany in this century. (Ref. 30) Drunkenness became a universal German characteristic, perhaps fueled by various strong spirits developed by the Dutch. (Ref. 31) The Fuggers had gone bankrupt in 1627; the Hanseatic League, with their trade taken over by Holland, was dissolved in 1669. (Ref. 32) Since prior to that wage-earners had begun to make up at least 50% of the Hanseatic town populations, this probably meant considerable change in life styles. (Ref. 33) German intellectual power could not be denied. Gottfried Wilhelm Leibniz, man of the world, intimate with statesmen and courts, accepting both Protestantism and Catholicism, writing 50 treatises and embracing God and the world with desperate optimism, was the great philosopher of Central Europe, living and working at various times in Leipsig, Jena, Altdorf, Mainz and finally Berlin, where he was the first president of the Berlin Scientific Society. He published an infinitesimal calculus in 1684, 3 years before Newton's similar work. (Ref. 34, 35) (Continue on page 948)

It may help to clarify the rather confusing situation in Germany if we discuss some of the more important divisions, separately.

BRANDENBURG - PRUSSIA

After 1618 these two states were united by marriage of two branches of Hohenzollerns and were under the same ruler. This was the third largest state in Germany, behind only Bavaria and Saxony in size. (Ref. [36](#)) During the Thirty Years War the area had been devastated by the Swedes, but the accession of Frederick William Hohenzollern, the Great Elector, in 1640, led to an astonishingly rapid recovery in economy, prestige and power. He organized a central government with a civil service, a postal system and a graduated income tax, along with improved roads and a canal system which permitted the growth of Berlin. Because the state was in the path of the Swedish armies in another of their attempts to conquer Poland (First Northern War of 1655-1660), Frederick was inevitably drawn in, but in the end he did gain full sovereignty over East Prussia. In 1680 his warships even defeated the Spanish navy off the Portuguese coast and by 1688 he had a modern standing army of 30,000 men to protect his 1,000,000 people. (Ref. [37](#))

The success of Frederick's administrative system started Prussia on a path of more absolute monarchy, while Holland and England were moving toward decentralization of government. For many years the Prussian monarch was intermittently at war with France and/or Sweden, sometimes with and sometimes against other German states and the empire, but finally affecting a rapprochement with Louis XIV, joining Saxony, Bavaria and some other states already getting subsidies from France. Frederick broke with that country only after the French king had revoked the Edict of Nantes, in 1685, resuming the persecution of the Huguenots. 15,000 to 20,000 of the latter went to settle in Prussian cities and became influential in cultural life then and for centuries to come.

The Great Elector's pretentious son, Frederick III, took over Prussia in 1688. His constructive efforts were few and concerned entirely with cultural advancements - establishing an Academy of Arts in 1696 and the University of Halle in 1694, which soon became a center for the emancipation of German culture from foreign influence. But the enormous sums he spent on beautifying Berlin, importing architects, painters, etc. almost bankrupted his state. (Ref. [38](#)) In 1700 Berlin had 25,000 Protestant, frugal,

efficient people and Prussia was spread all over the northern European plain from the Rhine at Holland to the Neman, some 500 miles east, but cut off from the sea, with poor soil and no natural resources. (Ref. 39) (Continue on page 949)

BAVARIA

Duke Maximilian I ruled through the Thirty Years War as an absolutist, with full support of the Catholic Church, actually gaining some territory at the final peace treaty. During the succeeding reign of the next Elector, Maximilian II Immanuel, Bavaria became one of the focal points of European intrigue, chiefly because of involvement in the War of the Spanish Succession of 1700. Bavaria's treasury was subsidized by the French. (Continue on page 951)

SAXONY

Saxony quickly regained its importance after the terrible Thirty Years War and Leipzig became a center for book trade, newspapers and journals. Dresden's Art Gallery was one of the best in the north. But Saxony's Elector, Frederick Augustus I, accepted the elective crown of Poland in 1697 and the unnatural tie-up of Saxony and Poland eventually led to the downfall of both. We shall hear much more of this under the discussion of POLAND later in this chapter. (Continue on page 952)

LESSER GERMAN STATES

Palatinate, Hanover, Wurttemberg, Baden, Hesse and Mecklenburg remained as other important states in this period, in which overall there were some 300 separate principalities. One of the most basic discoveries of the age was made by the Jesuit, Athanasius Kircher of Fulda, Hesse, when he initiated the use of the microscope in diagnosing disease and found the "worms" in the blood of plague victims and realized their significance. (Continue on page 953)

AUSTRIA

To regress for a moment, the learned Emperor Rudolf II ruled the Habsburg domains from the last quarter of the 16th century on into this 17th. As the new century began he lost Hungary, Moravia and Austria to his brother Matthias and when Rudolf died in 1612, Matthias became emperor, living just long enough to see the beginning of the Thirty Years War. He was succeeded by Ferdinand

II.

Austria was a Catholic world with a heavy Jesuit influence. The center of the empire was the Hofburg palace in Vienna, a structure not elegant like Versailles, but with a court of 2,000 noblemen and 30,000 servants. The Habsburg monarchy had emerged from the Treaty of Westphalia with only minor losses of territory such as Alsace, but the Holy Roman Empire, as such, had disintegrated. Ferdinand III, emperor at the end of the war, and the next four emperors, were all skilled musicians and composers. There was continued hostility from France and from the Turks who surged-up on Austria's eastern frontier 300,000 strong in 1683, just after Vienna had been hit by a plague which killed 100,000 people. France supported the Turks at that time and Vienna was surrounded on three sides, with even women manning some of the defenses and the people on the point of starvation. At the lowest ebb, Jan Sobieski, the Polish king, marched through the Vienna Woods with 50,000 Poles and Austrians and put the Turks to rout. At that point Leopold I, a typical Habsburg with a swarthy complexion and a projecting lower jaw, which was almost disfiguring, was emperor. Although almost always at war he was not a warrior and preferred theology, arts, the study of genealogy and similar pursuits. The basis of his policy was that the throne and empire had been fixed on the Habsburgs by God, but in actuality his real power came from the sword of Prince Eugene of Savoy, a frail man born in Paris and rejected by the French army, and who had turned to Leopold to become general of the cavalry at age 26 and commander of the Imperial Army of Hungary at 34. It was he who finally crushed the Sultan's main forces, 3 times larger than his own, at Zenta in September of 1697. This led to the Peace of Karlowitz in 1699 which gave all Hungary, with the exception of Croatia, to the Habsburg Empire. (Ref. 40)

In this century Salzburg was a separate territory and was not even involved in the Thirty Years War. A University was established there in 1623. (Continue on page 954)

HUNGARY

As the century opened Hungary was still a partitioned country and a battered one. Besides Turkish atrocities, the Habsburg administration began to take land from the estates in eastern Hungary and forced a counter-reformation against the Protestants.

Istvan (Stephen) Bocskay revolted against the Austrians with an army of wild soldier-herdsmen and drove the emperor 's General Basta out. Bocskay became the prince of an enlarged Transylvania and by the Treaty of Vienna of 1606, the Protestants were declared equal to the Catholics. In the same year a new treaty with the Ottoman Porte cancelled all tribute to the sultan, although the territories remained as before. There were then no Turkish aggressive moves for a half century. In 1608 the State Assembly had proclaimed the perpetual serfdom of peasants, and later a group of these called "Haiduks" took to the hills and lived by marauding and pillaging the Turks. (Ref. 41, 42)

A successor prince of Transylvania, Gabriel Bethlen (also Bethlen Gabor), developed mines, industry, and foreign trade and promoted education. He and his successor, Rakoczi I (1630-1644) were able to hold off the Habsburgs. The power and status of Transylvania ended, however, when the Turks made another great excursion and installed once again an Ottoman prince over that area. The Hungarians appealed to Leopold I in Vienna for help but he was fighting France and was also reluctant to offend the sultan and gave only token help. Hungary went into a decline and soon the Turks swept across to the walls of Vienna. As described above in the section on AUSTRIA, the tide soon turned and the Turks were beaten back across the Danube. As noted previously too, the Peace of Karlowitz in 1699 gave all of Hungary with the exception of Croatia, back to the Habsburgs. The Hungarian Diet fixed the succession of the ruler of Hungary in the male line of the Habsburgs, so that thereafter there was truly an Austro-Hungarian Empire. (Ref. 43)

An interesting side-light relative to the long, intermittent Christian-Turkish wars in Hungary had to do with the basic prerequisites of battle. Just as modern warfare would grind to a halt without gasoline and related substances, so the 16th and 17th century warfare was inconceivable without barley (or oats) for the cavalry. "No barley, no war."¹ At about the same time Hungarian cattle breeders found that they could obtain great profits exporting cattle to western Europe, so they stopped cultivating their arable land and bought grain rather than producing it. (Ref. 44) (Continue on page 954)

CZECHOSLOVAKIA

Moravia was a margraviate and Bohemia a kingdom, both under the domination of the Habsburg family, although a Calvinist king was elected in Bohemia in 1618. One of the triggers that initiated the Thirty Years War was a rebellion in Bohemia in that year against heavy taxes which had been levied on all Protestants by Emperor Ferdinand as a measure to bring the country back to Catholicism and Habsburg obedience. The rebellion was put down over a period of 3 years of war by the emperor with troops and money from Spain, German Catholics and the Pope. Thereafter only the Catholic religion was permitted in both Bohemia and Moravia. (Ref. 46) During that war a petty Bohemian nobleman,

Albrecht von Wallenstein, made soldiering into a vast speculative business. Although nominally only a contractor for the emperor, in effect he was almost a sovereign himself, because of the size of military forces which he commanded and supplied by taxation, outright plunder and massive, complex market transactions. In the latter, he cooperated with a Flemish businessman named Hans De Witte. Both were untouched by religious fervor or business scruples, but they developed an army of exceptional efficiency, numbering over 50,000 at its peak. Wallenstein's assassination was arranged by some of his enemies in the emperor's court in 1634. (Ref. 47)

Late in the Thirty Years War Bohemia was invaded again, this time by Swedes under Gustavus Adolphus. Ferdinand II bore the brunt of the fighting, but even then the Swedes penetrated through until they were actually in sight of Vienna. Then their long supply lines began to fail and they withdrew. But Bohemia was ruined, with only 6,000 villages out of an original 35,000 considered habitable. The population fell from 2,000,000 to 700,000. (Ref. 48) The lower classes of Bohemia along with the city-states of Germany were subordinated to princely power based on control by standing, professional armies. (Ref. 49) Recovery began, somewhat, at the end of the century when, along with Saxony, the Bohemian woolen and linen industries began to even outdo the old English and Flemish markets. (Ref. 50) (Continue on page 954)

SWITZERLAND

The long antagonism of the buffer state of Savoy and Switzerland flared again as the Savoyards attacked Geneva in 1602. The attack was frustrated, but it resulted in a reaffirmation of alliance between the whole Swiss Confederation and France, although the Catholic

cantons also retained their alliance with Spain. (Ref. 51) Officially the Swiss remained neutral in the Thirty Years War but they were involved some on their border at the Valtelline Pass, the most important link between Habsburg Austria and their Spanish possessions in Italy. In 1625 the pass was seized by a Swiss force in French pay, but in 1637 pastor George Jenatsch, originally a Protestant from Zurich, turned Catholic, secured Austrian aid and drove out the French. By treaty of 1639 the passes were left open to the use of Spanish troops. The chief occupation of the Swiss in the last half of the century was fighting, but usually as mercenaries. Tens of thousands of their men hired out in this way, particularly in France. Some of the Swiss cities, particularly Basle, became important relay stations for intercontinental traffic where overland vehicular freight, the Rhine and mule trains from the mountains came together. Some of the large transport firms made their headquarters in Switzerland. (Ref. 52) (Continue on page 956)

WESTERN EUROPE

All of the Atlantic coast nations had overseas empires, but the rise of French and British enterprise was made possible by smooth cooperation between business capital and government administrations. In contrast to Spain's constant constraints of the market and confiscatory taxation of private capital, the northern nations set taxation limits and allowed total wealth, private and public, to expand. (Ref. 53) (Continue on page 958)

SPAIN

The Habsburgs had convinced the Castilian nobility that the Spanish, as the strongest, most orthodox and "purest" people in Europe, should police Germany and the Netherlands, control France and invade England². In these imperial enterprises, the Spanish manpower and the American gold and silver were squandered. Spain became a mere channel for its colonies' silver as it quickly went into the purses of other nations. (Ref. 54)

There was further enfeeblement by the Inquisition and by decline of Spanish industries because of high taxes. The only profitable enterprises seemed to be the making of cheap brandy, production of some cotton and some iron works, particularly in the Basque area where every village seemed to have a forge. Smelting was done

with charcoal, which exhausted the forests. Overall, however, it was a period of industrial, commercial and financial failures, along with inadequate government, military defeats and some eleven general famines during the century. (Ref. 55)

In the 1620s and 1630s a powerful Dutch West India Company cut the Spanish shipping lines and stopped the flow of silver from America and thus indirectly allowed French and English settlements in the Caribbean. (Ref. 56) The wool industry was gradually lost to German wool and imported cotton. By 1630 there was violence and revolt. The situation was certainly not helped by terrible epidemics of plague between 1647 and 1654 in which half the population of Seville died. In Galicia the Church and other land owners tried to draw in the land leases (see page 623) and the tenants were thrown into long, legal struggles.

Some migrated to America, Portugal and Madrid. (Ref. 57) War with France, which began as an offshoot of the Thirty Years War, continued on for 12 years after the Treaty of Westphalia but finally ended in 1659 with the Peace of the Pyrenees, after which Spain was pushed back behind the Pyrenees for good and began sinking down to the level of a secondary power. Even so Spain did add to her overseas empire with the addition of the Philippine Islands.

There is little doubt but what religious issues played a great part in the decline of Spain. Besides the terrible effects of the Inquisition, Philip III's deep religious devotion was a great factor in that as he personally developed 9,000 monasteries he put 1/3 of the entire population in the church service and he left the government entirely to the Duke of Lerma. Intrigue, corruption and decline followed. By 1700 the male line of the Spanish Habsburgs died out. Leopold of Austria had trained his younger son, Karl, to be King of Spain, but due to the early death of the older brother Joseph, who was the Austrian-line successor, Karl had to take over Austria instead of Spain. The resulting vacuum resulted in the War of the Spanish Succession, starting in 1700 and carrying on into the next century.

A few other remarks about Spain in this period seem indicated. Velasquez was a fine painter in that country. A feature often little noticed was the great influx of French into the Iberian peninsula. Artisans, odd job men, retailers, masons, builders as well as peasant farmers came from France apparently because of over-population there. As many as 200,000 Frenchmen may have been in Spain by

1669. (Ref. 58) (Continue on page 958)

PORTUGAL

Portuguese power and prosperity continued to decline under the Spanish rule which had begun in 1580. By 1640, however, a revolt organized by a Professor Ribeiro, supported by the nobility and the clergy and financed some by France, then at war with Spain, succeeded and the Duke of Braganza became the Portuguese leader. After the country became officially independent by the Treaty of Lisbon in 1668, the Duke became King Joao IV. There followed 28 years of war with Spain to defend that independence. Later, while Pedro II was king, gold fields were discovered in Brazil and after 1697 the Portuguese court was one of the most lavish in Europe, and no local money was needed for support. Multiple aqueducts brought water from the mountains to Portuguese cities throughout this century. (Ref. 59) (Continue on page 960)

FRANCE (The Century of Louis XIV, the Sun-King)

After the assassination of Henri IV in 1610, civil and religious war again erupted, not to end until 1624 when Armand Jean du Plessis, duc de Richelieu (he had been made Cardinal in 1622) took over the reigns of government, as Louis XIII remained chiefly a figure-head. The king died in 1643 of intestinal tuberculosis. (Ref. 60) Although not a good financial administrator, for better or worse Richelieu increased the power of the royal bureaucracy at the expense of the nobles and Huguenots. His greatest achievements, however, were in foreign affairs, as he restored French influence in Italy, the Netherlands, Germany and Sweden. His work actually laid the foundation for the later power of Louis XIV, all of this occurring in spite of droughts, locust plagues and intermittent famines. (Ref. 61)

France's participation in the Thirty Years War was chiefly as an ally of Sweden, first with subsidies and later with troops who fought the Bavarians. Along with the Swedes they ravaged Bavaria on their second invasion in 1648, just before the Treaty of Westphalia in which France received absolute sovereignty over Metz, Toul, Verdun and Upper and Lower Alsace, although some of those cities retained their membership in the Habsburg Empire. The French monarchy gradually became the greatest and most consolidated power in Europe. One reason for this domination was

manpower, as France had 20,000,000 people in 1660 while Spain and England each had but 5,000,000 and Italy 6,000,000. The Holy Roman Empire had 21,000,000 but it was an empire in name only and was impoverished by the Thirty Years War. Although the French had cannon, they were not very effective. They developed a flintlock rifle by 1630, but it was accurate only up to 100 yards and until the end of the century the steel-headed pike on a wooden shaft was still the main infantry weapon. (Ref. 62)

Another reason for French supremacy is to be found in the calibre of its chief ministers. Guilio Mazarini, born in Sicily, sent as papal nuncio to Paris, caught the eye of Richelieu and after he had been made a cardinal (even though he had never been ordained a priest) in 1641, he followed Richelieu as chief minister under the name of Jules Mazarin, in 1642. He was the guiding hand at the Treaty of Westphalia. He served the Queen Mother well (Louis XIV was but 5 years old when he came to the throne) and perhaps was her lover. Even the king was only 1/4 French, being 1/2 Spanish from Aragon, Basque and Castilian lines (with possibly some Jewish and Moorish blood in the back-ground) by his mother Anne of Austria and 1/4 Italian by his grandmother, Marie de Medici. (Ref. 63) He was only 5' 5" tall, but robust, a good horseman and dancer, a skillful jousting and could turn a woman's head. (Ref. 64) He was basically a country person, loving the outdoors and his mind was not as good as his manners. He reigned from 1643 to 1715. Early in his rule some discontented nobles formed a resistance league, the "Fronde", which eventually came to open rebellion resulting in disruption of the Paris government and civil war in 1652. The nobles were conclusively defeated by the Crown and were tamed at the price of escaping taxations so that thereafter the economic burdens of the throne were thrown entirely on the lower classes. It was in this civil war, chiefly a war by Prince de Conde, trying to unseat Mazarin, that Mademoiselle de Montpensier, niece of Louis XIII, became known as the "Maid of Orleans" as she led her soldiers to take Orleans and later Paris, for Conde'. McNeill (Ref. 65) says that the successful suppression of the Fronde marked a turning point in European war and statecraft. Northern Europe then developed civilian control of army supply, paid soldiers regularly with money from tax revenues and learned to coordinate infantry, cavalry and artillery. All this had already been done by the 15th century in Italian city-states.

At the same time as the "Fronde", France was continuing a 23 year war with Spain, ending it in 1659 in the Peace of the Pyrenees, which probably only set up a situation which led to still another, later war. One cannot but help but relate France and German~ in this period to the Middle East in the 20th century where civil wars and wars with neighbors and various types of foreign interventions occur almost simultaneously and constantly. The Peace of the Pyrenees, besides yielding some territories to France, gave Marie Teresa, Spanish King Philip's daughter, in marriage to Louis XIV. Supposedly Louis, in turn, gave up all rights to succession to the Spanish throne. The peace was a triumph for Mazarin, who soon amassed a tremendous personal fortune amid the poverty of the common people. In the latter part of his reign, Louis also began to show defects of bigotry, vainness and arrogance. In spite of everything, however, France was well governed. Laws were revised into the Code Louis (1667-1673), a system of police was established in Paris, the streets of that city were paved and lighted by 5,000 lamps.

Upon Mazarin's death Nicolas Fouquet became chief finance minister, but was found to be incredibly corrupt. He was followed by Jean Baptiste Colbert, a remarkably able man who formed a nationally unified system of agriculture, industry, commerce and finance to support the "Grand Monarchy". Paris had already become a fabulous place, surrounded by a ring of markets. Although livestock markets were held twice a week, there might be 3,000 horses in any one day. Every district had its livery stable. (Ref. 66) But there was scarcely a year without famine someplace in France. Colbert actually sacrificed agriculture to industry, as he brought in Venetian glassworkers, Swedish iron workers and Dutch cloth-makers. By 1669 there were 44,000 looms in the country. The wealth of the business classes grew, but the condition of the workers became lower than ever on the economic scale. It has often been said that northern France was the industrial area while southern France was wine country. That division is somewhat misleading as witness Languedoc in the heart of the wine country with 450,000 textile workers in 1680 and some 12,000 artisans scattered among the villages of Orleans. (Ref. 67) In 1681 the Languedoc canal was completed, connecting the Bay of Biscay to the Mediterranean via the canal, the Rhone and the Garonne rivers. (Ref. 68)

By the time of Colbert's death in 1683, France had known 10 years of its greatest prosperity, but it had not been easy. Representing the classical Frank of French heritage, Colbert had had trouble with the more frivolous Gauls. The great nobles refused to invest in his overseas projects and the workmen refused to give up their 60 public holidays a year (not counting Sundays) and there were many strikes. Colbert, himself, worked 15 hours a day, 7 days a week. Lest we think too highly of him, however, it should be noted that he encouraged the slave trade and increased the number of galleys in the French navy from 6 to 40, each containing 200 slave oarsmen. He did not use blacks for these galleys, as he felt that they had no stamina and died too quickly, but used French criminals and captured Turks. (Ref. 69) His shipbuilding exploited the forestry resources of the entire kingdom. (Ref. 70)

This was an age of strict manners and loose morals. Public baths became less frequent than previously both because of the fear of infections, particularly syphilis, and the moral concepts of the Church. Even at the king's court baths were taken only rarely, in cases of sickness. (Ref. 71) Table manners were improving and although the "Sun King" ate with his fingers, forks were now in general use and napkins were in vogue. As with many kings and most European nobles, the monarch had many women, some of whom have become among the famous courtesans of history. But there were also famous and productive men in this era. Artists, playwrights (such as Moliere), sculptors, literary men and scientists all thrived in this glorious period of France. We shall speak of Huygens, Descartes, and others in the separate science summary at the end of this chapter. The science of surgery was elevated in France after Felix operated successfully on King Louis XIV's fistula. It was decreed to be a liberal art and its exponents began to assume a high rank in French society. (Ref. 72) There were 24 medical schools in France, of which 4 were dominant - Montpellier, Paris, Toulouse and Strasbourg (Ref. 73), but it must be admitted that in general medicine was bad. Infant mortality, helped by the physicians' bleeding, purging and emetics, was appalling. (Ref. 74) It seems strange that as late as this 17th century the muddy Seine was the chief water source for the city of Paris and no purification system was present. Water was sold by carriers who extolled its virtues, but it was an admitted purgative and, of course, unpleasant for foreigners. (Ref. 75) Religion was an important phase of life and

as important as politics is now. One of the scientist-mathematicians of the age was also one of the prominent figures in the great religious furors of the time. Blaise Pascal at age 11 had already composed a treatise on vibrating bodies and at 19 he contrived a computing machine. Later he came close to inventing the calculus, but by that time he was also embroiled in the intra-faith controversy between Jansenism and Jesuitism. Blaise's "Provincial Letters" became the strongest Jansenist denunciation of the Jesuit posture. In a sense, Jansenism, in its reformation attitude with the Catholic Church, was the final effort of the Reformation in France.

Map from Reference 97

Louis XIV was suspected by the rest of Europe of wanting to conquer the continent, but actually his military objectives may have been much less extensive, wanting only to secure his own borders from the Spanish Netherlands in the north down to the Barcelonnette Valley, which had access from Italy. Thus, the two aggressive wars of France were the War of Devolution to lay claim to a part of the Spanish Netherlands (1667-1678) and the attack in the Dutch Republic in 1672, which unfortunately flared into a European-wide war, in spite of Louis' best attempts at arbitration. Louis XIV built the great palace at Versailles near the end of the century so that he would never have to return to Paris, but actually he lived there only during his later years. Like most feudal kings he was always on the move, generally at war. (Ref. 76) Louis kept a standing peace-time army of 150,000 men, which was increased to 400,000 in the event of war. Versailles became the official seat of government in May of 1682. The palace had 3,000 mica-paned windows in 270 rooms, but no baths or toilets. There were 1,500 jets of water from octagonal lakes. When there was no war in progress with Holland, some 4 million tulip bulbs were imported from that country each year. The construction required 36,000 men, 6,000 horses and there was a high mortality rate from both injury and malaria. (Ref. 77)

Louis' relations with the Protestant Huguenots of France were one of the crucial defects of his reign. Fluctuating between tolerance and non-tolerance for years, this Catholic king finally, in 1681, turned again to a Holy war against the Protestant Huguenots. The majority of the latter, terrified, pretended conversion, but thousands fled, abandoning homes and properties. In 1685 the king revoked the Edict of Nantes and France was almost entirely Catholic. The few remaining Huguenots in many provinces were

then subjected to horrible tortures, some say much worse than the later revolutionary terror of 1793. Of the 1,500,000 Huguenots in the country in 1660, 400,000 escaped across guarded borders. The Elector of Brandenburg gave them so friendly a reception that by 1697 one-fifth of Berlin was French. The Protestants were unpopular in France probably for the same reason that Jews were unpopular in pre-World War II Germany - they were too rich, successful and clannish. (Ref. 78)

Colbert's massive system of state-regulated commerce and industry had begun to collapse before his death in 1683. (Ref. 79) Many factors played their part - the drain of men from the farm to the factory and battlefield, self strangulation from governmental regulation, the loss of the Huguenot economic skills and some of their savings. Taxes rose even as prosperity declined. Then, as a final straw, Louis XIV's imperialism frightened Emperor Leopold I, Elector Maximilian II Emanuel of Bavaria, the Elector of Brandenburg, King Karl (Charles) XI of Sweden and Stadholder William III of the United Provinces (Netherlands) into forming the League of Augsburg for defense against the French. Louis then made a great mistake. He attacked Germany and thus committed himself to a long, debilitating war and freed his Dutch enemy to help launch William III in his conquest of England. By 1695 Louis had only second-rate generals left and although they were still celebrating victories, the French people, taxed as never before, were nearing exhaustion in body and spirit. In 1694 famine had been added, the national economy verged on collapse, transportation was in chaos, foreign commerce was at a standstill because of enemy fleet blockades and privateers. (Ref. 80) Poverty, famine, disease and war reduced the population of France from some 23,000,000 in 1670 to some 19,000,000 in 1700. At last Louis realized his follies in continuing warfare and the Peace of Ryswick (1697) ended the war in so far as England, Holland and Spain were concerned. Separate peace was signed later with the German empire.

We must not make the mistake of centering all our attention on Paris and the Court in these centuries. Much of what is present day France had only limited or no real allegiance to the central government. In Aquitaine, for example, between 1590 and 1715 there were about 500 insurrections or would-be insurrections among the peasants. In Savoy, which remained separate from France proper in the early century under Charles-Emmanuel I, there

were innumerable calamities - plague, extreme poverty, bad harvests and wars of their own. Out of this turmoil a new aristocracy supplanted the old feudal nobility. (Ref. [81](#)) (Continue on page 961)

THE NETHERLANDS AND BELGIUM

In 1609 Spain recognized the independence of 7 provinces of which Holland was the chief one, while keeping the entire southern Spanish Netherlands. Those 7 provinces warred with Spain (1621-1648) as an off-shoot of the Thirty Years War and after the peace, formed in essence, the Dutch Republic. (Ref. [82](#)) It was initially ruled by a States-General made up of representatives from each of the provincial assemblies. The control was an oligarchy of business men with the aristocratic House of Orange given the control of the army. Those two ruling classes clashed at intervals, but it did not seriously interfere with the tremendous prosperity and progress of the country. In the first half of the century Holland had the intellectual leadership of Europe. The Frenchman, Descartes, working in Holland, developed his laws of refraction, his philosophy and his mathematics in his Discourse on Method, published in 1637. (Ref. [83](#)) Van Leeuwenhoek did his early work with the microscope and single-celled organisms; the artists Rembrandt, Hals, Vermeer and Ruisdael did their painting; and Baruch Espinosa, later known simply as "Spinoza", born in Amsterdam of Jewish-Spanish heritage, wrote his philosophy, alienating all religion, not accepting Christianity - and he was cast out of Judaism. Christian Huygens, who developed the wave theory of light was second only to Newton as the greatest scientist of the age, inventing among other things, the pendulum clock. (Ref. [84](#)) Two Dutchmen were the greatest medical teachers of the time - Sylvius and Boerhaave, both at Leiden. Jan Baptiste van Helmont (1577-1644) was the leading Paracelsian and iatrochemist of the century, although he rejected Paracelsus' astrology, as well as the medicine practiced by most churchmen of the era. He felt that enzymes were fundamental to all physiological mechanisms, a most modern concept. (Ref. [85](#))

Amsterdam became the financial and trade center of the world, where both expertise and credit were readily available. When Lisbon was closed to Dutch trade as a result of French and English influence, the Dutch had to find their own way to the East and they

were soon challenging command of the Indies with Portugal. The Dutch navy became supreme, supplanting Portuguese commercial power in the South Seas. The Dutch East India Company took control in Batavia in 1619, Ceylon in 1638, the Cape of Good Hope in 1652 and Sumatra in 1667. It paid dividends averaging 18% over a period of 198 years. Of 20,000 vessels carrying the maritime commerce of Europe in 1665, 15,000 were Dutch. In the middle of the century 33% of busy Amsterdam's East India trade was in pepper. (Ref. [86](#), [87](#))

But to regress a little, in the middle of the century Holland had some serious difficulties. It was in 1651 that the English Parliament passed a Navigation Act forbidding foreign vessels to bring any merchandise into England except that locally produced. One of the Dutch-Anglo wars resulted and the supremacy of the English naval power at that time was soon obvious. An English blockade of the Dutch coast ruined the economy and the population approached starvation. At that point Jan de Witt undertook the leadership of the country. He was diligent and devoted to the tasks of the government. For awhile England continued to dominate, taking over New Amsterdam in North America, among other indignities and thus started the 2nd Dutch War. In the end the Dutch still lost New York, but gained some territory in South America and more freedom on the seas. A four year Portuguese war over Brazilian interests started in 1657. (Ref. [88](#)) Jan de Witt and his brother Conreliis finally lost favor with their people and were assassinated. The Dutch Republic went down with them.

Protestant Holland and her successes were an affront to Louis XIV and in 1672 he entered Holland at the head of a large army and swept to within sight of the steeples of Amsterdam. William of the House of Orange (a family originally from near Avignon, France), now only 21 years of age, was nevertheless appointed Stadholder and Captain-General of the army, forever. Despite his army's holding efforts, he finally had to open the dikes and flood a great part of Holland, leaving Amsterdam as an island. After much destruction, the French withdrew and a peace came in 1678, but William's hatred of the French king never abated and even after he became King of England, the situation remained unchanged.

In the second half of the century there were 2,000,000³ people in Holland and it had an army of 120,000, with the 2nd largest navy of the world. The very fertile land had a large yield per acre,

allowing one farmer to feed two non-farmers, thus allowing the promotion of commerce, industry and shipping. The Dutch had some 4,000 merchantmen ships. Amsterdam was the wealthiest city in the world and the greatest port in Europe. In reality it was an archipelago of 70 islands with 500 bridges and surrounded by great windmills on watch towers, to get the energy to keep out the sea. There were multiple industries, factories, warehouses, iron workers and beautiful homes. (Ref. 89) In the naval yards there were mechanical saws, cranes, mast-erecting machines and factories with hydraulic wheels. Dutch dairy farmers were then specializing in dairy products and the large scale export of cheese. (Ref. 90) From 1609 the Amsterdam Exchange Bank was the focus of continental trade, commerce and finance. The fortune of Amsterdam marks the decline of the great credit fairs of Europe. A stock exchange was developed, dealing in government stocks and shares in the Dutch East India Company. Even the concept of a commodities market was present, with men dealing in "futures" in such things as herring and wheat. Leyden continued as a textile manufacturing center, but already labor-management troubles appeared as a forerunner of capitalism's albatross. There were at least 5 great strikes in that city in this century. (Ref. 91, 92)

It is of interest that one of the greatest trade commodities in early 17th century Holland was the tulip bulb. This famous flower had been brought from Turkey via Carolus Clusius, previously Prefect of the Imperial Medicinal Garden of the Austrian emperor. Any unusual tulip (often resulting from a virus infection) became a status symbol and prices sky-rocketed, with the tulip trade becoming a full-time occupation for many. Speculation in "futures" followed and laws and regulations were drawn up defining the way business should be carried on. Sometimes a single bulb would sell for 2,500 florins. Finally, however, as more and more bulbs flooded the market the collapse came and by mid-century Holland was on the brink of bankruptcy with this as a major factor. Tulip-mania ended, but the flower remained. (Ref. 94) Tea was introduced to the Dutch in this century, probably from Japan and soon all Europe thought that it would cure all illnesses. (Ref. 95)

In religion the Dutch found it profitable to practice a degree of toleration broader than elsewhere in Christendom. The majority were Calvinists, but the Catholics were so numerous that suppression was impractical. Marrano Jews accumulated in many of

the cities and they were granted freedom of worship but were forbidden to marry Christians.

The Jews included some of the wealthiest merchants. Some 4,000 Portuguese-Jewish families built a beautiful synagogue, which is still one of the sights -of Amsterdam. About 1630 Ashkenazaic, or Eastern (German) Jews arrived but were not welcomed well by the existing Sephardic group. Dutch cities were flooded with books and publishers and in at least five different cities there were books printed in Latin, Greek, German, English, French and Hebrew, as well as in Dutch. Amsterdam, alone, had 400 shops with books.

The area now called Belgium broke free from Spain for about 20 years at the opening of this century under Archduke Albert, but then it fell back under Spanish rule. Although ethnically diverse, the people were overwhelmingly Catholic, preferring to be dominated by a distant Catholic Spain than be subjected to Protestant neighbors. They welcomed the Jesuits and followed the intellectual lead of the Catholic University of Louvain. By the treaty of Westphalia, Spain had agreed to the closing of the River Scheldt to foreign trade, so that the city of Antwerp and the country 's entire economy was crippled. At the end of the century Belgium served as the battle ground for the French-Spanish wars, with the result that a large section of the beautiful city of Brussels was destroyed by French bombardment in 1695. It is somewhat ironic that Liege had developed a booming armaments industry, supplying much of Europe. (Ref. 96) One of the few great Flemish painters of this century was David Teniers, the Younger. (Continue on page 968)

BRITISH ISLES

ENGLAND AND WALES

This 17th century was a time of transition from the island kingdom of Queen Elizabeth to the great European power of the later 18th and 19th centuries. (Ref. 97) The struggle of the English throne to rule with absolute monarchy against the powers of Parliament had ensued through the reigns of Henry VII and VIII, Edward VI, Mary and Elizabeth I, but it came to an acute reckoning at the death of James I (Stuart of Scotland and son of Mary, Queen of Scots) in 1625. When Charles I then became king, civil war broke out and he countered by declaring war on Spain and France, further deteriorating the financial state of England. In 1628 Parliament

issued the "Petition of Right", citing the old Magna Carta and reviewing various limitations on the king. Charles dismissed the Parliament and called none to meet for 11 years. A long civil war followed (the English Revolution, 1640-1688), with the king holding out in Oxford and the Parliament controlling London. Oliver Cromwell emerged as a military organizer, who picked religious enthusiasm as a rallying agent (Puritans), formed the "Ironsides" as a democratic military unit, beheaded Charles after a "trial" by a Rump Commons, suppressed an Irish Catholic insurrection, chastised Scotland again at the battle of Dunbar (1650) and then took to sea, trouncing the Dutch navy and making the English fleet supreme. Cromwell's Puritan supporters, who often wore short hair, were derisively called "Round-heads" in distinction to the wigged Cavaliers, supporters of the king. Commercially England was far behind the Dutch, but it soon became clear that only the English could possibly challenge them. More war with Spain followed and the Spanish fleet was again destroyed. At Cromwell's death in 1658 his republicanism came to an end and the son of Charles I, Charles II, was brought back to the throne, restoring the Stuart Monarchy. Under Cromwell the simple citizen profited little, although the merchant princes prospered from the wars. Rule by army and naked force, even coated by the religious cant of Puritanism, was still offensive and at the end Cromwell's regime was hated perhaps more than any that had gone before.

A few details about the Puritan faith seems appropriate at this time. Durant (Ref. [98](#)) says:

"Perhaps only among the Jews did religion play so pervasive a role in everyday life as among the Puritans; and indeed Puritanism agreed with Judaism in almost everything except the divinity of Christ."

The chief object of life was to escape the fires of hell and the machinations of the Devil. Only a few were destined by God for salvation. They attempted to legislate morality, establishing fasting days, the "blue" Sunday still with us to some extent today, made adultery a capital crime and oaths a severe misdemeanor. Some say that while the Puritan regimen narrowed the mind, it strengthened the will and the character and helped to prepare Englishmen for self rule. An offshoot of the Puritan faith is found in the Quakers, founded by George Fox. Their basic faith was obscured for a time with fantasies and bigotry. They distinguished themselves by

allowing no ornaments on their clothing, ref using to remove their hats for any reason whatsoever and by addressing all persons by "thou" and "thee". They were very intemperate in their denunciation of other sects. Pagels (Ref. 99) writes that George Fox, although probably unaware of it, carried on the old Gnostic tradition (see pages 320 and 339), with analogous interpretations of religious experience.

Under Charles II, military and naval power declined and the Dutch navy regained supremacy on the seas. In England, however, there burst out pent-up intellectual energy. We must list such names as Robert Boyle for his work in chemistry, Robert Hooke, the perfecter of the microscope, Halley the great astronomer, Christopher Wren, geometer, astronomer and architect and William Harvey, former student at Padua, who described the circulation of the blood in man. But above all, we must mention Sir Isaac Newton, who, using Galileo's and Kepler's work, formulated the laws of gravity. Newton developed the calculus and the binomial theorem and used his mathematics in physics and astronomy. His work had far flung consequences, even giving rise in the religious field to Deism. The king conferred an official charter upon the Royal Society of London for improving natural knowledge, in 1662. Most of the men just mentioned, along with some poets like Dryden and Waller, were members. The poet John Milton is said to have introduced more than 600 words into the English language, all derived from the Latin, Greek or Hebrew. (Ref. 100)

The English common man of this time was a coarse, rough, profane individual. When prisoners were hanged, drawn and quartered, their heads were parboiled first with Bay salt and cumin seed, to keep them from putrefaction while on public exhibition and to keep the birds from seizing them. (Ref. 101) Most roads in England were nearly impassable. Carts usually moved at about two miles an hour and were often held up for days by high water. The various parts of England were essentially cut off from each other and that was a factor in making the inns of that day so important and so different from those of today. The inn was a hub of commercial activity. For example, in 1686 Salisbury in Wiltshire, then a small town, could accommodate 548 travelers and 865 horses in its inns. (Ref. 102) Most of London in-city transportation was by boat on the Thames, as the streets were narrow and covered with garbage and filth, crowds of people and deep ruts, which made

carriage rides hazardous. There were abnormally cold winters in this century and Londoners held all the festivities of Carnival (Christmas to after Twelfth Night) on the frozen Thames. In early 1683, however, huge ice floes at the mouth of the river froze in ships, so that food and goods ran short and prices quadrupled. But city life took refuge on the frozen river and even huge markets were held. It was a violent city with murders common and frequent hangings and the inevitable drawings and quarterings. Although the richest city in Europe, as late as 1660 London was so short of food that 1/5 of the people who were buried in even prosperous parishes had died of starvation. (Ref. 103) But the nobility continued to live extravagantly. It is said that when Henry Berkeley, Lord Lieutenant of Gloucestershire, went to London he took 150 servants with him. Business in the city was run by fewer than 200 merchants. (Ref. 104)

The population of England and Wales in 1660 has been given at about 5,000,000 and it probably increased to 5,500,000 by 1700. Five-sevenths of the people lived in the towns with 1 out of every 10 Englishmen living in London, with its 750,000 people. Of about 800 market towns in England and Wales, at least 300 were for single trades: 133 for grain; 26 for malt; 6 for fruit; 92 for cattle; 32 for sheep, with others for horses, swine, fishy poultry, dairy products, leather, linen and whatnot. Livestock could be driven to market, sheep much farther (up to 70 miles) than cattle, while grain was carried overland no more than 5 to 10 miles. Leadenhall may have been the largest wholesale market in Europe after about 1666, when 100 stalls sold beef and another 140 were reserved for other meats, not even including fish. (Ref. 105) Child labor was the rule and people were proud to say that any child of 5 years could make his own way. Beer was cheap and everyone drank it, even children, as it was easier to find than decent water. Coffee came in from Turkey about 1650 and tea came from China about the same time. Household staples were dear and the price of grain rose 500% between 1500 and 1700. The historian Nussbaum has stated that a Gregory King estimated in 1696 that 1/4 of the English people were dependent upon alms and that money collected for poor relief equaled 1/4 of the whole export trade. Air pollution was already a problem because of the immoderate use of coal. (Ref. 106)

A very severe epidemic of plague broke out in 1665, with 70,000 Londoners dying of the disease. Tobacco was widely considered to

be prophylactic against the plague and even children were encouraged to smoke. (Ref. 107) In 1666 a fire burned for three days, destroying most of London north of the Thames. 200,000 people lost their homes, as 2/3 of the City went up in flames. After this disaster, though, the Corporation of London organized a fire department, fireplugs were placed in the main water pipes, streets were made wider and straighter and sanitation was improved. (Ref. 108) The fire had also destroyed rats, fleas and germs and for this or perhaps some unknown reason, plague soon disappeared and it was 253 years before native cases of the infection again caused death in England. As a matter of fact, from this time on plague left all of northwestern Europe, although it remained active in the eastern Mediterranean and in Russia. Although quarantine and other public health measures may have helped some, probably the chief reasons lay elsewhere. Wood shortages had resulted in more stone and brick houses⁴ and thatch roofs, which were homes of rats, had given way to tile and the gray rat had pretty well replaced the carrier black rat. The former did not climb as much and preferred to burrow in the ground rather than live in roofs and house walls. Perhaps also there was some transition in the *Pasteurella* organism itself, perhaps mutation to the milder *Pasteurella pseudotuberculosis*. (Ref. 109)

It will be noted that no credit has been given the medical profession for the disappearance of the plague. Nevertheless, some progress in this field continued to be made. Thomas Sydenham was a great clinical physician who recognized that each major disease had many varieties. Thomas Willis contributed the *De Anatome Cerebri*, a thorough study of the nervous system. A circle of arteries at the base of the brain and the 11th cranial nerve still bear his name. The Royal Society, with physicians as the major component, was formed in this century and still exists today. The battle between apothecaries and physicians over the practice of medicine was bitter. (Ref. 111) As the power of plague ebbed, that of typhus fever rose. That infection had first been described in 1643 by Willis, but it did not become a major problem in this century. Measles, in both the 16th and 17th centuries appears to have been closely associated with small-pox. A severe epidemic occurred in 1674, causing the extreme degree of contagion of the disease to be recognized. (Ref. 112)

But we must return to the governmental scene. When James II,

another devout Catholic, reached the English throne in 1685, he brought back to focus the old "King or Parliament" issue and the latter, continuing the revolt, promptly dethroned him, thus expelling the last Catholic king from the British Isles. After some intrigue, Parliament allowed William of Orange, the great Dutch leader, to arrive with an army and take over the English throne nearly bloodlessly. His royal claim was through his wife, Mary, sister of James, although a Protestant. William, a persistent hater of the French, as we have seen, and Mary made alliances with various European powers in an attempt to curtail the powers of France. Louis XIV was William's sole target. He had taken the English throne to acquire the wealth and land and sea forces to wage a European war. (Ref. 113) He was not interested in the domestic affairs of England and left those problems to ministers, the most influential of which was George Savile, Marquis of Halifax. John Churchill, Earl of Marlborough, was virtually commander-in-chief of armies, leading 8,000 men against the French in Flanders. Later Churchill was dismissed because of royal family intrigues, regaining the king's confidence again only at the end of the century. William just barely lasted out the century, dying in 1702. He was father-less, childless, asthmatic, had a tubercular lung, was partly crippled, lived with a loveless wife (Ref. 114) and was considered a homosexual by most historians. (Ref. 115) During his reign, in spite of an expanding economy, there were constant political battles between landowning Tories (From "Tory", an Irish word for robber) and the money making Whigs (apparently a shortened form of Whiggamore, a band of Scots active in 1648 against Charles I). (Ref. 116) There were also battles between the English and the Scots and with William's supporters and those who would assassinate him and restore James on the throne. In 1692 an army of 10,000 desperate Irishmen and 10,000 French regulars assembled around Cherbourg, ready to attack England and restore the Catholic James to the English throne. The subsequent invasion fleet was destroyed by the British navy's Admiral Russell, formerly a James backer. On land William's armies were not so successful, with the war finally grinding down to a truce in the Treaty of Ryswick in 1696.

In spite of everything there was some grace and beauty in England. After the Great Fire, Sir Christopher Wren erected 52 new parish churches, most of which stand today. On the economic scene, the Bank of England was formed in 1694 to consolidate some older

firms and to get on an even footing with Amsterdam. (Ref. 117) The progressively increasing coal production, particularly at Newcastle, slowly modernized England as this fuel was used in such industries as salt manufacture from sea water, sheet glass, bricks and tile production, sugar refining, bakeries and breweries. We have mentioned before that throughout history people have tended to resist technological progress. This was even true when the first stagecoach went from Manchester to London in a day in 1669 – it would be the end of the noble art of horsemanship, it would ruin saddle and spur manufacturers and Thames boatmen. (Ref. 118) In 1675 10,000 silk-workers of London rose up against the introduction of French ribbon-loom, with which a single worker could weave 10 to 12 ribbons at a time. Soldiers had to be called in when the new machines were burned. But business activity continued anyway. By 1695 the Royal Exchange was handling transactions in public stocks and shares in the Indies and the Bank of England. (Ref. 119) (Continue on page 970)

SCOTLAND

Scotland continued as a Protestant stronghold under the common monarchy with England, with Scotland now supplying the Royal House of Stuart for most of the century. On the death of Elizabeth, James VI of Scotland had become James I of England. This was not to say that all was peace and harmony between the two countries, for the Scots were shocked by the execution of Charles I and they were almost immediately to claim the son, Charles II, then exiled in the Netherlands, to be the rightful king of the two nations. This declaration of Charles II as king was made by the Scottish "Covenanters", a group formed to protect Scotland against "popish" practices of the preceding monarch. (Ref. 120) When the new Charles landed in Scotland, professing to support Presbyterianism, he started immediately for the English border, but he was met and defeated by an army led by Cromwell himself. The ultimate result was suppression of this Scottish "revolution" and the country was again subject to England, its separate Parliament dissolved, although it was allowed to send 30 delegates to the London Parliament. Scotland waited and prayed for the Stuart restoration, which came in 1660 with Cromwell's death and finally the ascension of Charles II on the English throne.

Unfortunately, Charles II still had a great tendency to

Catholicism and when upon his death his Catholic brother took the throne as James II of England (James VII of Scotland) he immediately started removing Protestants from office, suspended all laws against Catholics and punished ministers who preached against Rome. When the revolution to depose James was started in England it was seconded in Scotland, as bands harried the Jesuits, destroyed the Holyroodhouse printing press and sacked the Chapel Royal. But when William of Orange took over the English throne, he was not immediately accepted by the Scots and in traditional fashion the clans squared off - some for James and some for William - and fought, killed and robbed each other for months. Episcopalians were soon as much the victims as Catholics, as Presbyterianism finally began to triumph. Rob Roy, son-in-law of Gregor Macgregor, became chief of the Macgregor clan in 1693, controlling lands from Loch Lomond to the Braes of Balquhiddie. (Ref. [121](#), [122](#) (Continue on page 976)

IRELAND

At the end of this section in the last chapter we described the encirclement of 4,000 Spanish troops sent to help the Irish in their rebellion. In the final battle of 1601 the Irish and Spanish lost to the English Lord Mountjoy. The Irish O'Neill with 100 other chieftains and a thousand followers then went into exile on the continent. James and Charles I of England continued the oppression of Ireland, crushing rebellion after rebellion and giving land progressively to Protestants at the expense of Catholics. It even became illegal for Catholics to buy land, although most of the Irish remained with their faith, anyway. Caught up in the religious and civil wars of England, in 1641 the Ulster Irish rose, scattering thousands of colonists. In 1646 Irish Catholics beat the English at Blackwater River, but victory was short lived. After Oliver Cromwell defeated and beheaded Charles I, he came to Ireland to get revenge and forever settle the "Irish Question". He smashed Catholic Ireland and its people with massacres. 30,000 Irish hurriedly left for the continent and Ireland lost a quarter of its population. Within 50 years Catholic Ireland was largely owned by wealthy, often absent Protestant English. (Ref. [123](#))

Later, when James II fled England he went to Ireland, enlisted a Catholic army and attempted to retrieve his throne, but was beaten at the battle of the Boyne in 1690.

Although the resulting treaty yielded the Catholics some land and rights, neither the English nor the Irish Protestant Parliaments would ratify it and the oppression continued. All the inhumanity that was to be visited by Catholics upon the Protestants of France in 1680-1690 had been visited by Protestants upon the Catholics of Ireland, particularly from 1650 to 1660. Those bitter years remain in Irish memory as an undying heritage of hate.

Peasants of Ireland were of ten close to famine. They bled cows, boiled the blood with some milk and butter and herbs, making a savory blood pudding, a version of which is still known in County Cork and elsewhere. In Tyrone and Derry, the coagulated blood was salted and preserved for use at other times of the year. (Ref. 124) Fortunately for the Irish, one quarter acre of land will yield 20 hundredweight of potatoes and this, with a few pigs, could just sustain a family. (Ref. 125)

The battle of the Boyne was actually not the last gasp for Catholic Ireland. Patrick Sarsfield defended Limerick until a great battle at Aughrim (1691) where William and Mary's Dutch General Ginkel defeated a French General St. Ruth and the Irish. Sarsfield then led some 14,000 troops to the continent to try to continue to fight on against England along with French troops. (Ref. 126) That Irish brigade subsequently played a prominent role in French military history. (Ref. 127) (Continue on page 977)

SCANDINAVIA

NORWAY

Many factors allowed the continuation of dominance of Denmark over the geographically larger Norway. Denmark had a much larger population, a much larger capital and much more productive land. Only 5% of Norway is cultivable, while 75% of Denmark is so. The tide of Renaissance splendor which washed in over Denmark never reached as far north as Norway. The country was just basically poor. There was fishing, timber and some farming, but the roads were terrible and the country thinly populated. In the pre-railroad centuries, all of Denmark's military forces could be assembled at any point in a few days, whereas it took weeks or months to bring Norwegians together from scores of separated valleys and fjords. (Ref. 128) Norway stagnated under Danish rule and the only redeeming monarch was Christian IV (1588-1648) who made an

honest effort to give the Norwegians a better position. He developed mining, instituted new civil and religious laws and developed Norwegian trading companies. He founded Oslo, naming it "Christiana". In his endless wars with Sweden, however, several Norwegian provinces were given away and Norway's population fell to about 480,000.

The Reformation was manipulated by Denmark to the great detriment of Norway in that Protestantism was forced on her as a means of subjugation. (Ref. 129) Danish language Bibles and hymnals were also forced, doing much to establish a common Dano-Norwegian language. This is still one of the languages of Norway, called "Riksmal", in contrast to the now revived native language "Landsmal". Before Christian IV, the Hansa merchants had established themselves in Bergen and were a parasitic growth on the whole economy. One of the most famous Danish Navy heroes, elevated to nobility under the name of Tordenskjold, was born Peder Wessel, in Trondheim, Norway. (Continue on page 978)

SWEDEN (Beginning Sweden's Age of Power; the Struggle for the Baltic)

Sweden, proper, goes 1,000 miles north from its southern tip and has 96,000 lakes, but in this 17th century it had only 1,500,000 people. Iron was its chief export, making more than 1/2 the total, with silver and copper being next. (Ref. 130) In about 1625 Flemish techniques of blast furnace construction and metal casting were imported, allowing the casting of excellent iron guns, so that soon Sweden dominated the international cannon market. This boom had been initiated in 1620 when Louis de Geer, a native of Liege, had sent Walloon ironworkers to this Scandinavian country. (Ref. 131) The blast furnaces were financed with money from both Holland and England. (Ref. 132)

The century opened with the youngest son of Gustavus I as first regent and then King Karl (Charles) IX of Sweden. He established Lutheranism as the state church and then because of claims of the Polish Sigismund to the Swedish throne, he invaded Livonia, beginning the long Polish-Swedish Wars. King Gustavus Adolphus (1611-1632), "Lion of the North", made Sweden briefly the greatest military power in Europe. Axel Oxenstierna, his chancellor, helped the nation grow in industry, trade and scholarship. Sweden entered the Thirty Years War in 1630 "to save the Protestant cause" in

Germany, but in so doing, virtually conquered most of that country. Adolphus went as far as the Danube but then was killed at age 38, while leading a cavalry charge. His daughter Christina at 6 years of age became queen, but she became an eccentric woman and poor ruler, who at 28 years of age pleaded illness and abdicated to go to Rome, where she announced her Catholicism and became a patroness of the arts and the lover of Cardinal Azzolini. Christina was followed on the throne by her cousin Karl (Charles X, Gustavus), son of John Casimir, count palatine of Zweibrücken, who had had military experience in the Thirty Years War under Torstensson and Chancellor Oxenstierna. He had frank expansionist aims and reopened war with Poland, took Riga and transplanted its iron and steel industry to Sweden, laying the foundations of an even stronger industrial basis for his martial policies. (Ref. 133)

After the Treaty of Westphalia in 1648 Sweden, at the peak of its imperial power and "Mistress of the North", completely encircled the Gulf of Bosnia and the Gulf of Finland, controlled Finland, Karelia, Ingria, Estonia and Livonia, most of the Baltic Islands and had two large beach-heads on the north German shore. The first of these was at the mouth of the Oder River, with Stettin, Stralsund and Wismar and reaching to within about 30 miles of Berlin and secondly the Duchy of Holstein-Gottorp on the west side of the base of the Danish peninsula. Needing money during the Thirty Years War, the Swedes had cut down vast forest areas in Pomerania, with the result that subsequently many of these areas were invaded by sand dunes. (Ref. 134)

It may have been that frequent harvest failures from cold may have, in part, stimulated the swings of the Swedish kings into Germany and Poland. (Ref. 135) At any rate, Karl X Gustavus found it easy to invade Poland, but difficult to subdue it. When Frederick William of Brandenburg tried to steal West Prussia, while Poland was under duress, Karl turned on him and forced the Treaty of Königsberg, which gave East Prussia to Sweden. Finally, when the Catholic powers on the continent rose up against him, he turned his forces against Denmark with his army crossing the ice of the frozen Kattegat (1658). Only a valiant defense of Copenhagen saved the Danish throne. Although the open sea in the center of the Baltic did not freeze in winter, the shore line and the northern $\frac{1}{2}$ of the Gulf of Bosnia did freeze from November until early May, shutting down all merchant shipping and in some years, as in that just mentioned,

even the Kattegat froze solid. Finally, Karl Gustavus was defeated on the sea by the combined efforts of England and Holland, who wanted no nation to exclusively control access to the Baltic.

Karl (Charles) XI (1660-1697) was not as successful militarily as his predecessors. He was defeated in 1675 in the battle of Fehrbellin by the Great Elector of Brandenburg-Prussia, but later by treaty and through the help of Sweden's new ally, France, he was able to recover Swedish Pomeria. (Ref. 136) At home, however, Karl XI was determined to reduce the power of the aristocracy and one way was to demand the return to the crown of various lands previously given to the nobles, a measure which brought much disfavor to him, not only at home but in the possessions south of the Baltic. When he died in 1698 of cancer of the stomach, he was succeeded by his 15 year old son, Karl (Charles) XII, a frail boy, slender and wiry, but already a superb horseman, hunter and avid student of military science. He did not care for the Swedish language and spoke and wrote it poorly, but used German, which was the court language of all the northern kingdoms. He also had a knowledge of Latin and French and was a student of the campaigns of Caesar, Gustavus Adolphus and particularly of Alexander the Great. Even at his young age he refused to have a regent and crowned himself king immediately and took over the reign. He participated in dangerous sports such as fighting a bear using only a wooden pitchfork, etc. and played at war as did his contemporary, Peter of Russia. (Ref. 137) (Continue on page 978)

DENMARK

Although Denmark had a king the actual power was in the hands of noblemen who lived well, although not on the scale of other European countries. In large areas of the nation the old Danish "free" peasants had fallen into a dependent state, roads were poor and heather began to take over fields, because farmers did not know how to control it. (Ref. 138) Even then, the Danes were able to send some 80,000 head of cattle to Germany each year.

The most renowned Danish king, Christian IV, was crowned in 1596 and in spite of continued war with Sweden, he was a builder, constructing Europe's largest naval arsenal at Copenhagen and also a new Stock Exchange. He got into a disagreement with the great Tycho Brahe, living on an island in the sound by previous royal decree and Brahe went to Prague where he soon died. During

Christian IV's reign, Copenhagen doubled in size. He made the sad mistake of entering the Thirty Years War on the side of the Protestants and after being defeated by Tilly he retreated, only to have the German troops move up and ravage Jutland. Just a few years later, the Swedish troops also came up from Germany into Jutland and then down from Sweden into Scania, thoroughly defeating the Danes.

At the Treaty of Broemsebra in 1645 Denmark lost the island of Gotland as well as Scania, across the sound. Between 1650 and 1660 Denmark lost more than 20% of its population from disease and starvation. (Ref. 139) The wars were continued later in the century when Sweden also tried to take control of Norway. At one point Sweden hired Scots mercenaries to attack the Norwegians, but the peasants rallied and killed most of them. All in all, as Sweden's star rose over Europe, Denmark's began to fall. (Continued on page 981)

FINLAND

Although a part of Sweden, the Finns maintained their own language and way of life. At the beginning of this 17th century Finland was made a Grand Duchy of Sweden and given orders of nobility. Their land served as a battle ground for the later Swedish-Russian wars for control of the Baltic. After a temporary peace with Russia in 1617, Gustavus Adolphus inaugurated the first Finnish Diet, with representatives from the new nobility, the clergy, the town dwellers (burghers) and the peasants. Peasant sailors were small traders, operating between Helsinki and Revel, across the gulf. (Ref. 140) The University of Turko was founded in this period. Illustrating that the bad side of Europe was the East, however, was the Finnish famine of 1696-7 when perhaps 1/3 of the population died. That was said to be one of the most terrible events of European history. (Ref. 141) (Continue on page 982)

EASTERN EUROPE

While peasants of western Europe were freeing themselves gradually from serfdom (with the exception of Spain), feudal power grew and spread in eastern Europe, until the peasant state became almost slavery. Free peasants survived only in newly conquered lands where they substituted military service for rent. But eastern Europe's wheat and rye was in great demand in western Europe,

some of ten going even to Portugal, Spain and Italy. (Continue on page 983)

SOUTHERN BALTIC AREA

As the century unfolded the great struggle for the Baltic continued with Sweden, Russia, Poland, Brandenburg and Denmark all being eager participants. From the Neva Delta southwest, the states lining the Baltic south shore were Ingria (Ingermanland), Estonia, Duchy of Courland, Lithuania, Prussia, Pomerania, Polish corridor to Danzig and Brandenburg. Livonia was now under Polish control, but the Livonian nobility were descendants of the Teutonic Knights and they were not at all happy with the Polish imposed Catholicism, so that late in the century (1660) they had no difficulty becoming aligned with Luthern Sweden. But Livonia, like all the southern Baltic countries, experienced almost a hundred years of being overrun by various armies, with shifting borders with every treaty. Johann Reinhold von Patkul, of old Livonian nobility - a cultured, experienced military officer spoke to Charles XI of Sweden about his "reduction" policy (the policy of returning nobles' lands to the crown of Sweden, as mentioned under SWEDEN, above), as Livonia had supposedly been guaranteed against such, but he not only got no relief but was later sought by Swedish officers for arrest. He eluded them and helped a little later to form the alliance which challenged Sweden in the Great Northern War. Thus, in the end when Sweden controlled almost all, the other concerned powers had already entered into an alliance to dismember Sweden by war. We shall have a special feature section on this Great Northern War which actually began in 1700, at the end of this section on Eastern Europe.

Poland deserves further consideration. While a giant in size, it was the weakest and most vulnerable of all the European states. It had a population of about 8,000,000 (France had over 16,000,000), but it was poor politically and militarily and it became a battle ground for invading foreign armies. The causes of Poland's impotence were several. First, there was no real racial or religious cohesion - 1/2 the people were true Poles and were Catholic, but the other half were Orthodox Lithuanians and Russians, Jews and Luthern Germans. In addition the Cossacks obeyed only their Ukranian "Hetman" and refused all orders from the Polish king. To continue, the political situation was bad. Poland was a republic

with a king who was elective and who had only that power given him by feuding nobility. The true rulers were the great Polish and Lithuanian lords and among the latter the Sapieha family defied all kings of Poland. Furthermore, neither king nor Diet had any machinery for tax collection. The army, although with individually brave men, had no discipline and the lords might withdraw their own contingents for any reason, at any time. (Ref. 142) At times, particularly early in the century, the Poles tried to be aggressive, but in the end they always seemed to be on the short end of the stick. With these generalities in mind, we shall give a little more political detail.

Upon the death of Bathory at the end of the previous century, the Polish Diet bargained for a year before finally giving the throne to Sigismund III, who, as heir to the Swedish crown, might unite the two countries and control the Baltic, checking Russia. Half of his reign was devoted to this vain struggle. The sudden death of Boris Godunov in Russia, gave Sigismund another idea of also ruling Moscow. He marched into Russia with an army, took Smolensk and even entered Moscow for a short time (1611-1612), retreated and later again marched on that city but was unable to reach it in the Russian winter. The only result of all this was the possession of Smolensk and Severski and a strong infusion of Polish influence into Russian life. (Ref. 143) The rest of Sigismund's reign was a succession of other disastrous wars, including an expensive struggle with the Turks, during which time the Swedish king took advantage of his preoccupation to invade Livonia. Upon his death in 1632 the Diet gave the crown to his son Ladislas IV, a fine general and an enlightened man who encouraged debate on religion and promoted art and music. He died in 1648 just as a great Cossack Revolt threatened the existence of the Polish state. (Ref. 144)

The Cossack Revolt, resulting from a complex set of dissatisfactions, including interference with their Orthodox worship, was first led by Bogdan Chmielnicki and supported by the Moslem Tatars of the Crimea. As the Polish Diet selected the Jesuit John II Casimir as ruler, Chmielnicki cast his lot with Orthodox Russia and offered the Ukraine to Czar Alexis. Russia accepted, knowing that it meant war with Poland. But the Crimean Tatars preferred a Polish to a Russian Ukraine and they shifted their support back to Poland. As the war raged, the Swedish king slipped in and conquered Warsaw. But the Swedes became over-enthusiastic, plundered the

country, despoiled the churches, etc, until the populace united and pushed them back. Karl (Charles) X, the Swedish king, died and that part of the Polish war ceased. The Russian involvement came to an end in 1667 with Smolensk, Kiev and the eastern part of the Ukraine ceded to Russia. A terrible side effect of the Cossack Revolt was the accompanying ferocious massacres of the Polish Jews, who had served as stewards and tax gatherers for the Polish and Lithuanian estates. Early in the century 40% to 50% of all trade in Poland was handled by itinerant Jews⁵, but later they were butchered without mercy and thousands of infants were thrown into wells or buried alive. (Ref. 145, 146) In the town of Polonnoye alone perhaps 10,000 Jews were killed by Cossacks or taken prisoner by Tatars. Altogether in the 10 years of 1648 to 1658 it is estimated that nearly 35,000 Jews were killed in Poland, Lithuania and Russia. This began their massive migration to western Europe and America, resulting in a completely new distribution of the Jewish population.

Poland continued the disastrous war with the Turks and the latter soon gained sovereignty over the western Ukraine. Jan Sobieski, a general of that war, was elected king to become Poland's greatest sovereign. He launched further campaigns against the Turks, wresting the western Ukraine away from them again and finally defeated them in their last siege of Vienna. As a help in this last war, Sobieski signed a treaty with Vasily Golitsyn, prime minister of Russia and incidentally the regent Sophia's lover, by which Russia attacked the Crimean Tartar vassals of the Ottomans. In exchange, Poland again ceded Kiev to Russia. (Ref. 148) At home Sobieski, although he tried, could not improve the conditions of the peasants, for their masters dominated the Sejm (parliamentary body); he could not compel the rich to pay taxes for the wealthy were the Sejm; he could not keep the factious nobles in order, for they refused him a standing army. (Ref. 149) The Turkish domination of the Balkans had cut off the southern trade routes from Poland and this, along with the rise of a class of great landlords, lessened the prosperity of - Poland's commercial centers and prevented the development of a Polish middle class. The nobles, who owned serfs, sent a regular river of grain from their estates down the Vistula to Gdansk. (Ref. 150)

Upon King Sobieski's death, in spite of the Sejm's decision to accept Louis XIV's choice of Prince de Conti, Augustus of Saxony

simply marched in with a Saxon army and took over as king. As he changed his religion to Catholicism, it was soon apparent that he was shrewd, deceitful and, in modern terminology, a real "double dealer". At the end of the century in 1700, this section of Europe was wrapped up in the Great Northern War, with Karl (Charles) XII of Sweden defeating Russia's army at Narva, Livonia. But Karl did not pursue, probably because of fever, dysentery and hunger in his army. His horses were eating bark, because of a "scorched earth" policy of the retreating Russians. By the spring of 1700 only 1/2 of Karl's troops were fit for action. (Ref. [151](#)) (Continue on page 983)

RUSSIA (See Map in RUSSIA section, 19th century)

In the last chapter we left Russia with Boris Godunov on the throne. He immediately had several problems. First of all he was not of royal descent and this aroused the old boyar families - the Golitsyns, Shuiskys, Romanovs and others. Next, crop failures between 1601 and 1603 caused catastrophic famines and finally there were rumors that Boris had actually been involved in the assassination of the "rightful heir", the infant Dimitri. In 1604 a motley army of mercenaries from Poland, including restless Cossacks and disgruntled peasants, marched on Moscow and in the middle of this uprising Boris died and was replaced by his son Theodore. The advancing army had the "False Dimitri" with them and through intrigues with Jesuits and Polish-Lithuanians and various opponents of Theodore, the "False Dimitri" was set up as Czar, taking a Polish girl as his wife. Polish-Lithuanian influence suddenly became very predominant. When it was discovered that the Czar's wife was Catholic, however, a popular uprising resulted in Dimitri's death and the appointment of Vasili Shuisky as the new ruler.

Violence from political, social and religious elements continued to be present. Led by I.I. Bolotnikov, a former serf, many landless Cossacks and poor peasants formed a mass movement against not only Shuisky, but all nobles. Although Bolotnikov was killed in the first battle with the forces from Moscow, the rebellion continued, again also involving forces from Poland and Lithuania. Helped by local dissidents Polish forces actually occupied Moscow in 1611 and 1612. Prince Dimitri Pozharsky, after getting an agreement with the disgruntled Cossacks, entered Moscow with his own forces in October 1612 and forced the Poles to surrender. (Ref. [152](#))

In 1613 the National Assembly elected Michael Romanov as Czar, starting a new dynasty. Michael was the son of a patriarch Filaret and he re-established the autocracy and the service nobility as rulers of the Russian state. Under Michael peace was obtained with Sweden in the Treaty of Stolbovo in 1618, with Novgorod going to Russia, but other towns in that area to Sweden. All of the first Romanovs sought to exclude foreign influence. Thus, while foreigners were needed as drillmasters, armament makers, merchant contact for furs, etc., they were all enclosed in special ghettos in Moscow and were treated with general suspicion as dangerous heretics. There was a new formulation of law, but actually it merely codified existing laws based on medieval absolutism and orthodoxy. Thus it was a criminal offense to look at a new moon, play chess or not attend church during Lent. As we have noted in the section above, in 1648 the Ukrainians and Cossacks revolted against their Polish rulers for both social and religious reasons and, gaining independence, put themselves under Moscow's protection. It should be noted that at this time Russia's commercial ties were still chiefly with the East and there was no real sense of property, industry or individual enterprise. (Ref. [153](#))

In this century Moscow was a rich and beautiful city, as large as London. Hundreds of gold domes topped with golden crosses dotted the sky-line, as there were 1,600 churches in the city. Red square was a brawling, open-air market place. Most of the city was of wood, however, and there were great fires in 1611, 1626, and 1671. Even the streets were wooden planks to keep people out of the mud in the spring thaw, although this attempt was often unsuccessful. At noon all Moscovites stopped for a large meal and then a 2 or 3 hours nap. At night few were on the streets but thieves and cutthroats. The Kremlin was on a hill 125 feet above the Moscow River, with walls 12 to 16 feet thick, rising some 65 feet above the surrounding rivers and moat. The whole fortress area included 69 acres.

In 1636 there were more than 40,000 houses in Moscow, but one must not get the idea that Russia was an urban society. In 1630 only 2.5% of the people lived in towns and this had increased only to 3% well into the next century. (Ref. [154](#)) The Nenets continued to be the chief inhabitants of Arctic Russia, spreading to all the peninsulae of the Kara and Barents seas. (Ref. [155](#)) For 300 to 400 miles north of the Black Sea there was a "no-man's land" between

the Ukranian Cossacks to the north and the Black Sea itself and this was the hunting ground of the Crimean Tartars, remnants of the old Mongol conquerors and now vassals of the Ottoman Turks. Sometimes these Tartars raided north, taking thousands of Russians as slaves for the Ottoman slave markets.

In the third quarter of the century the Czar was Alexis Mikhailovich, considered a demigod, almost inaccessible to his people but called the "father of Russia", while the earth was "mother". Even when only 16 years of age he had been called the "young monk" and he spent most of every day praying and working. On fast days he frequented midnight prayers, prostrating himself on the ground as many as 1,000 to 1,500 times. He often ate only 3 meals a week. Near the end of his reign there were about 8,000,000 Russians, only a fraction of which lived in the larger towns. Most were scattered in villages in forest clearings or along the rivers. May Day, still celebrated by the communists, was an ancient holiday of rebirth and fertility after the long, frozen winter.

Czar Alexis' first wife, Marie Miloslavsky, died bearing her 14th child, but those that survived were sickly and only 2 lived to rule. Alexis then married Natalya Naryshkina, raised by his chief minister and friend, Artemon Mateev, but whose real father was a Tartar. The bride, through her upbringing in the educated Mateev's home, introduced many western ways into Czar Alexis' previously monastic life. Their "Camp David" was an immense wooden building at Preobrazhenskoe of jumbled architecture. A separate three story building with two peaked towers served for their young son Peter and his half-brother, Ivan. The palace had baths for family and servants while its elaborate contemporary at Versailles in France had none. Alexis died at 47 years, apparently of a respiratory ailment and his invalid son Fedor (by his first wife) became Czar. His legs were so swollen that he had to be carried to his coronation at age 15. His mother's family, the Miloslavskys, had Alexis' minister and Natalya's surrogate father (Mateev) arrested, stripped of property and sent as a state prisoner to Pustozersk, a remote town north of the Arctic circle - such has always been and remains the custom for change of political power in Russia' Peter and his mother remained secluded in the Kremlin.

Fedor, with a scurvy-like disease, mild-mannered and relatively intelligent, of ten had to rule giant Russia lying on his back and he lived only 6 more years. But he did one great thing by abolishing a

medieval system of precedence which had burdened the administrative system with boyars (nobles) of inadequacy and allowed-henceforth offices and power to be distributed on a basis of merit, not birth. At Fedor's death, his brother Ivan would normally have been the next czar, but he was lame, nearly blind and spoke with difficulty so the throne was given to Peter, 10 years old, with the idea that Mateev, recently removed from exile, would be his advisor, although his mother Natalya would be regent.

In the middle of the century, even though Russia had tried valiantly to remain isolated from Lutheran Sweden, Catholic Poland and the Islamic Turks and Tatars, foreigners and their more modern ideas had begun to filter into Russia so that even the church began to doubt itself, resulting in a Great Schism, as in the Catholic World long before. Alexis' patriarch, the iron-willed Nikon was a reformist, trying to get the wandering Russian liturgy and church ritual back to the classical Greek Orthodoxy. Arch priest Avvakum, a fanatical fundamentalist, became the leader of the "old Believers" - many common people who had migrated to the Urals and forests and established remote villages. Avvakum, originally Nikon's friend, was banned to Tobolsk in Siberia in 1653, but by writing and lectures he remained a leader of the Schismatics. Nikon continued as a stern enforcer of discipline on laity and clergy alike, banning Cursing, card playing, sexual promiscuity and drinking. Eventually he assumed powers which seemed to exceed the czar's and was brought to heel by the four Orthodox patriarchs of Jerusalem, Constantinople, Antioch and Alexandria. Nikon then condemned himself to exile but the turmoil did not end and soon there was a full scale rebellion. After Fedor became czar, Avvakum wrote to him saying that his father Alexis was in hell, suffering terrible torments because he had originally backed Nikon. Fedor had the old patriarch burned at the stake, but as a martyr he inspired 20,000 old Believers to burn themselves to death in the next 6 years (1684-1690). The Schism almost destroyed the Russian Church.

It is appropriate to remark here that Russian women were considered silly, intellectually void, morally irresponsible and potentially evil and promiscuous from childhood on. As wives they could be legally and religiously beaten or divorced by forced entrance into a convent, where they were essentially considered "dead". Any Russian man could thus have two "divorces" but had to keep the third wife. For the men of that time the chief problem was

drunkenness and in the lower classes the women joined them in drunken, free-love carousing until all fell asleep in an alcoholic stupor, night after night. Sisters and daughters of the czar were different than other women and could never marry Russians beneath their rank (and there were none other) and their religion prevented marriage with foreigners, considered heretics. They spent their time in prayer, embroidery, gossip and boredom, in what was called the *terem*.

Almost immediately after the crowning of Peter as czar, his half-sister Sofia Miloslavsky instigated a terrible revolt of the Streltsy, a professional police-army originally formed by Ivan the Terrible and consisting of 22 regiments of 1,000 men each and whose officers had become rich through "moon-lighting" and paying no taxes. Fed by untrue rumors of the poisoning of Fedor and plotting to kill Sophia's brother Ivan, they stormed the Kremlin and in a bloody and terrible massacre dismembered and killed most of the boyars as well as Mateev and finally, after torturing Natayla's brother, demanded the crowning of young Ivan as co-czar, with Sophia serving as regent. In that way she succeeded in ruling Russia for the next 7 years. The impact of all this savage revolt and the murder of many of his family scarred young Peter for life and affected the whole future of Russia, Moscow and the Orthodox religion as well.

Peter was a bright, physically healthy and attractive boy, who started to learn the arts of war from foreigners in the "German" suburb (actually a ghetto), using his boyhood friends and neighboring children in the vicinity of Preobrazhenskoe as soldiers, as each year he had more real implements of war sent out from Moscow. He learned to build and sail western-type boats from Dutchmen in the foreign colony and developed an intense interest in the sea. In the meantime, under Sophia the regent and her prime minister and lover, Vasily Golitsyn, a treaty had been signed with King Sobieski of Poland in which Russia received Kiev in exchange for warring against the Crimean Tatars, vassals of Sobieski's enemy, the Turks. Twice Golitsyn marched south to wipe out those Tatars and twice he came back soundly defeated, although this was never acknowledged in Moscow publicly. The Tatars had previously carried off 20,000 Russian men to slavery in one raid alone in 1662 and by the end of the century Russian slaves manned the oars of galleys in every harbor in the eastern Mediterranean. In Golitsyn's two abortive attacks he lost 80,000 men - dead or taken prisoner -

and to aggravate matters the Tatar Khan then raided the Ukraine again, taking 60,000 more prisoners.

When he was 17 Peter's boyar backers overthrew Sophia as regent and confined her to a convent. Although officially czar, Peter did not actually reign until 1694 when he was 22 and in the meantime administration of Russia deteriorated rapidly. There was reaction again against all foreigners and they were stopped at the borders unless permission was obtained from the central government. The patriarch ordered all Jesuits out and even wanted all Protestant churches in the German suburbs destroyed, but Peter spent much time there and prevented that. Peter, as all Russians before and after, was a heavy drinker, often drinking all night long. He even formed "Peter's Jolly Company" in which the primary requisite for membership was a capacity for drink and like the lowest Russian worker, they simply drank every night until they became unconscious. The Jolly Company even created the "Drunken Synod", a thinly veiled mockery of the Church. Married at 16 1/2 years, he soon had a male child but thereafter ignored his wife Eudoxia. At about the time he actually assumed his duties as a czar, he developed what was apparently focal epilepsy, frequently having severe spasms about the left side of his face and neck with occasional radiation to the left arm. This may have resulted from a high fever in 1693, now speculated to have been encephalitis. By 1695 Peter's war games had progressed up to the use of 30,000 grown men and as czar he then decided to attack the Ottomans at Azov and promptly took an army there. He failed, partly because he had no ships to control the River Don, bordering Azov. So he next built a shipyard at Voronezh, getting shipbuilding experts sent in by the Doge of Venice, while he cut up and transported a galley previously ordered from Holland from its docking at Archangel down to Voronezh to serve as a model.

Peter's co-czar, crippled half-brother Ivan V, died in the same year that Peter made a second strike at Azov with 46,000 Russian soldiers, 15,000 Ukrainian Cossacks, 5,000 Don Cossacks and 3,000 Kalmucks, semi-Asiatic horsemen who could ride with any Tatar, along with hundreds of new barges and 29 war galleys. After a 2 month siege, the Turks surrendered the city. Peter was in the midst of all the fighting and at the end he reorganized and fortified the city and then constructed a new fort, harbor and naval base some 30 miles from the Don on the north shore of the Sea of Azov, at

Tagonrog, using some 20,000 Ukrainian laborers. He sent 3,000 peasant families and 3,000 Streltsy and their families to Azov as colonizers. The state then undertook to build 10 large ships, but great landowners and monasteries were to supply everything except the timber. Western shipbuilders were imported and Russians were sent west to learn shipbuilding, seamanship and navigation. It is obvious that Russians were not seamen, although wild Cossacks in boats crammed with sails, had pirated the Black Sea throughout this century. (Ref. 156, 157)

Young Czar Peter then took off to western Europe on what has been called "The Great Embassy". The real purpose of this trip was to strengthen the old alliance against the Turks, as Peter had decided he could not fight them alone. King Sobieski of Poland had died in 1696 and France was possibly preparing for new wars with the Habsburg Empire. In addition, Peter wanted to educate himself concerning his new navy. The czar went incognito, although with his towering height of 6' 7", he was hard to hide and although some deception was kept, the ruling powers of Europe knew his identity. Officially the top ambassador in the group was Peter's Swiss friend and confidant, Lefort, and he was assisted by Fedor Golovin and Prokof y Voznitsyn. There was an additional escort of 20 noblemen and 35 young Russians, chiefly old friends and previous "play" soldiers. Chamberlains, priests, secretaries, interpreters, musicians, cooks and soldiers made up the rest of the party of 250. The trek started in 1697 through Livonia, thence through the Duchy of Courland to Brandenburg and then to Hanover. The embassy's first extended stop was in Holland, where Peter studied and worked in the shipbuilding yards of both Zaandam and Amsterddam. In the latter city he lived in a small house and cooked his own meals, while he worked each day in the yards. But he also visited engineers, printers, anatomist Fredik Ruysch, botanist Boerhaave and naturalist van Leeuwenhoek, inventor of the microscope. After meeting William of Orange, who was King William of England as well as Stadholder of Holland, the czar was invited with a small party to visit England for 4 months. Although still incognito, he did visit with the King and Princess Anne. His residence in England was Sayes Court, a large, elegant house with great gardens opening onto the dockyard on a river. After 3 months Peter's Russians had practically destroyed the house, the furniture (apparently used for firewood), pictures and portraits (used for target practice) and the

garden. Peter paid 28,000 pounds for permission to import a limited amount of tobacco into Russia, although the use of this plant had been accompanied by the death penalty under Czar Michael.

In the meantime the remainder of the embassy in Holland had recruited 640 Dutchmen, including one Rear-Admiral and other navy officers, seamen, engineers, physicians and others along with ten ship loads of equipment to go to Russia. Returning home the embassy went through Saxony to Vienna, where Leopold I reigned as emperor and where Peter was considered scarcely better than other eastern princes who lived in tents. The embassy made great efforts to try to get Austria to push harder against the Turks, but Leopold, becoming more nervous about the French king, was about to make peace with Turkey. Peter then tried to get the emperor to have the Ottomans yield Kerch (controlling the entrance to the Black Sea from the Sea of Azov) to Russia and again Leopold would not accommodate.

At about that time the czar received news from Moscow of a revolt of 4 regiments of Streltsy. The revolters had already all been killed or taken prisoner by an army under General Patrick Gordon, an old Scots friend and advisor of Peter's, but the czar decided to go on home anyway. He had determined to transform Russia into a modern state on western principles. He initially decreed such superficial changes as the cutting off of beards, change to western clothing by abolishing the long cloaks and sleeves going below the finger tips, etc. Women were to use petticoats, skirts, bonnets and western shoes.

The calendar was changed to the Julian one so that the old Russian year 7,206 then became the year 1698. Russian coinage was revised and instead of giving large estates or money for service to the state, one would henceforth get the "Order of St. Andrew" - a ribbon to wear diagonally across the chest. The prisoners remaining from the Streltsy rebellion, numbering 1714, were now "examined" under terrible torture by knout (a type of lash) and fire and then most were executed. A few of the young ones were not killed but were either branded on the right cheek and exiled or had their noses or ears cut off. The Streltsy were no more.

Peter the Great's southern fleet, built at Voronezh on the Don, was never used, because in the Peace of Carlowitz between Austrians, Poles, Turks and indirectly Russians, the Turks did

concede Azov but not Kerch to the Russians. In June, 1700 the Russian ambassador in Constantinople negotiated a 30 year truce with a demilitarized zone supposedly to be established between the Crimean Tatars and Russia, proper. This agreement infuriated the Tatar Khan, Devlet Gerey. In the meantime, Peter's two most trusted foreign advisors, the Swiss Lefort and the Scot General Gordon, had died. And then the Great Northern War came towards Russia. (Ref. 158)

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1. Quotation from Braudel (Ref. 45), page 110
2. This was after the ascension of the heretic Queen Elizabeth
3. Of this number, 10,000 made up the ruling aristocracy. (Ref. 93)
4. The wood shortage also led to use of coal in houses, and by 1660 Britain produced 1/2 million tons of coal, five times that of the rest of the world. English coal, however, interacted poorly with iron ore and was not good for smelting iron, which was still imported. (Ref. 110)
5. Italian merchants were also numerous in the cities and fairs of Poland in this century. (Ref. 147)

Europe: A.D. 1701 to 1800

EUROPE (A "French Century", with a decline of religion in political affairs)

Even before the Industrial Revolution of the last quarter of this century, there was dramatic change in Europe. Spain and Italy were declining rapidly, while England, France, Sweden (exploiting mineral resources) were developing quickly. But it was a century of almost constant warfare, with conflict going on in some area all the time and in several localities at once most of the time. (Ref. 1) McNeill (Ref. 2) emphasizes that there were four limits to the existing military organizations:

1. The difficulty of controlling the movements of an army of more than about 50,000 men. New forms of communication and more accurate terrain maps were needed
2. Slow transport of supplies. Food for the men and fodder for thousands of horses made a bulky and awkward supply train. Living off the countryside destroyed the tax-base and allowed the soldiers to get out of control as they became immersed in plunder, so the rulers sought to supply armies from the rear
3. Organizational and tactical problems. With the long history of mercenary contingents and patronage appointments, it was difficult to organize an effective, cohesive army based on training and ability, tempered with seniority
4. Sociological and psychological restraints. Peasants were needed to produce the food and townsmen to provide the money, so that it was difficult to recruit enough men for a professional army without infringing on those two necessary groups

The answer to some of the above situations was in the development

of new technology in weapons, such as mobile field artillery; development of accurate small-scale mapping; the break-down of the armies to divisions, units of about 12,000 men, but complete within themselves, with infantry, cavalry, artillery and all supportive elements; and better road-building .

At the same time, in spite of the warfare, the 18th century saw the heyday of wealthy merchants all over Europe. (Ref. 3) The philosophers were convinced that this was an age of enlightenment and progress, but it was a time of bungling politicians, greedy nobles, of immorality and corruption also. There were other paradoxes. In spite of great scientific advancements in physics and chemistry, the practice of medicine lagged far behind and may even have declined. Bleeding, cupping and purging remained prominent treatments. (Ref. 4) An estimated 60 million Europeans died of small-pox in the century and early there was an extensive famine, as frost killed crops as far south as the Mediterranean coast. The winter of 1709 was especially severe, with most northern rivers and even ocean coastal waters frozen. (Ref. 5) Typhus fever took its own toll, with a severe epidemic in Sweden and the loss of 30,000 people in France in mid-century. Yellow fever killed 10,000 in Cadiz, Spain. (Ref. 6)

The population of Europe went from 140 to 188 million from 1750 to 1800. The majority of the people were illiterate. In the first half of the century their civilization was based almost as much on wine as on wheat. Europe as a whole must have been burning 200 million tons of wood yearly up until about 1790 when coal came into more common usage. At the same time there were approximately 14 million horses, 24 million oxen, the equivalent of 4 to 5 million horsepower in the form of wood, 1.5 to 3 million horsepower potential in 600,000 watermills, 900,000 horsepower in the 50 million human workers and 233,000 horsepower in the form of sails, not counting war-fleets. (Ref. 7, 8)

A new business development was the concentration of trade and its profit to warehouses and storage depots. Raw cotton from Central America was stored in Cadiz, that from Brazil in Lisbon, Indian cotton was pooled in London, while Marseilles took that from the Levant. Mainz and Lille were great wine depots. By the end of the century, the Europe of fairs was turning into the Europe of warehouses. Exchange rates of silver and gold varied from time to time, seriously affecting the European economy. France over-

valued silver and so that metal was attracted there, while Venice, Italy, Portugal, England and Holland put a high price on gold. (Ref. 9) Finally we must emphasize the tremendous effects from the extensive overseas colonies of multiple European nations. The map of the next page is well worth study in this regard.

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

The Ottoman Empire maintained its domination of the eastern Mediterranean islands with the exception of Malta, which remained independent under the Knights of Malta, until Napoleon's troops conquered it in 1798. (Ref. 10, 11)

GREECE

Greece was still docile under the Ottomans but Greek sea-farers and traders became prosperous at the end of the century as blockade runners through Napoleon's overseas domains and through other waters. By the Treaty of Kuchuk Kainardji (see page 942) the Turks allowed Russian ships to sail on the Black Sea, but since they had no ships or seamen of their own in those waters, they accorded Greeks and other Christians the right to fly the Russian flag.

UPPER BALKANS

In 1711 Peter the Great of Russia vowed to free the Balkans from "the enemies of Christ". Both Moldavia (now a part of both Romania and the Soviet Union) and Wallachia pledged to help Peter, but only Moldavia actually supplied any troops and at the last minute Wallachia double-crossed the Russians so that Peter ended up pocketed with only 138,000 infantry, almost surrounded by 200,000 Turks and Tatars. The Russians surrendered, giving Azov and the Tagenrog harbor back to the sultan, abandoned their southern fleet and evacuated Poland. Russia did not give up any territory about the Baltic. Karl (Charles) XII of Sweden, who had just spent over three years in Moldavia, could now go back to Sweden. Meanwhile, Brancovo, the Hospodar of Wallachia, was beheaded by the Turks for his original thoughts of helping Czar Peter, even though in the end he had reneged. (Ref. 12)

As a result of a war of the Ottomans with Austria and Russia again in 1736 to 1739, northern Serbia and Belgrade were freed

from Austrian domination. Again, in the First War of Catharine, Moldavia and Wallachia were both overrun by Russian troops and about 7 years later (17~1) by an Austrian-Russian Treaty the Austrians were to receive the whole western half of the Balkans. After the Second War of Catharine, the Austrians gave up Belgrade in return for a strip of northern Bosnia, while Moldavia and Bessarabia were returned to Russia.

Maize from America had been grown in gardens in the Balkans under at least ten different names for many years, but it was not until this century that it began to be grown in the wide open fields, as in much of the rest of Europe. (Ref. [13](#))

ITALY

Italy had a population of about 15,000,000, living under divided rule. The old noble families of Florence and Venice were shrinking and fresh blood had to be brought in. Titles were granted for money. (Ref. [14](#)) The Habsburgs took over Tuscany in 1737 and except for Venetia, Genoa and Savoy, they soon controlled all of northern Italy. The Papal States and Kingdom of the Two Sicilies remained as previously, and the Genoese Republic remained independent but was constantly encroached on by Savoy, France and Austria. The forces which led to the revolution in France were also at work in Italy in the last of the century and when the French Revolution did break out, some Italian states tried to join in a coalition against France. As a result, Napoleon invaded the peninsula, crushed all resistance and once again Italy became a French dependency. At that time, General Napoleon was only a young army wizard, but that military conquest initiated his climb up the ladder of fame and power. The 1797 Treaty of Camp Formio, however, gave Venice to Austria¹ and divided the rest of Italy into 5 republics: Cisalpine with Milan as capital; Liguria, with Genoa as capital; Roman, including Rome itself; Bologna; and Parthenopean, which included the entire southern third (except Sicily), with Naples as the capital. (Ref. [15](#), [16](#))

Naples, with perhaps 500,000 people, was the 4th largest city in Europe, although at the end of the century at least 100,000 were extremely poor, living like "filthy animals". (Ref. [18](#)) All southern Italy had a feudal system, with powerful barons who were sovereigns on their own estates. In the Kingdom of Naples over 50% of the population were subject to feudal justice and in some

provinces this was over 80%. As in the rest of Europe, food supplies in Italy frequently were short and unreliable. As an example, Florence experienced hunger in 111 years of the 400 leading up to 1791 and had had only 16 "very good" harvests in that same period. Maize, with its high yield, finally put an end to the recurrent famines in Venetia. All over Italy, soon the peasants ate maize and sold their wheat. Transportation and communications remained slow. With horses, coaches, ships and runners, messages could make at most 100 kilometers in 24 hours. (Ref. 19)

The islands bordering the Tyrrhenian Sea were in constant political turmoil throughout this century. In 1713 Spain ceded Sardinia (along with Naples) to Austria and Sicily to Savoy, but by 1720 the latter had exchanged Sicily for Sardinia. In 1732 Genoa recovered Corsica from insurgent forces, who had revolted two years previously, but French help was necessary to control the island. In the same spot local clans under Paoli again rebelled in 1755 against Genoese rule and established a democracy, but France bought the island from Genoa in 1768 and crushed Paoli, only to see him rise again in 1793. On the latter occasion he was defeated by Napoleon, himself a Corsican. In that same year, Sardinia tried to get autonomy within the combined kingdom of Piedmont-Sardinia. Through this century Sardinia was a strong military state - the Prussia of Italy. Usually it was allied with Austria through Eugene of Savoy, a great military leader for the Habsburgs.

In spite of the turmoil, Italy continued to be a center for scientific and medical studies. Luigi Galvani started electrophysiology with electrical stimulation of nerves; Alessandro Volta developed a battery. Giovanni Morgagni, at the medical school at Padua for 56 years, is considered the "father" of pathological anatomy, describing the changes associated with such diseases as cirrhosis of the liver, kidney tuberculosis, syphilitic brain lesions and pneumonic consolidation of lungs. (Ref. 20)

CENTRAL EUROPE

GERMANY

After a long period of disorderly aftermath of the horrors of the Thirty Years War, the German-speaking people, with peace, stability and their natural strength, returned to add to the European civilization, particularly in music and Rococo style architecture.

(Ref. 21) Germany was made up of 20,000,000 people divided into more than 300 practically independent states, each with its own sovereign prince, but all loosely subject to the head of the rather phantom Holy Roman Empire. The average east German village was still somewhat "servile" in 1750, however, and serfs still owed their masters heavy services and payments and they were not allowed to leave their estates in most German areas as late as 1788. (Ref. 22) In spite of considerable river traffic on the Rhine, Elbe and Oder rivers, overland transport still carried 5 times as much goods as waterways. It has been estimated that there were 40,000 horses used as dray animals, not including those on farms. (Ref. 23)

The story of this country from this time on was that of the power policies of two royal families - the Prussian Hohenzollerns, - represented by Frederick I, Frederick William I and Frederick II and their counter-parts, the Austrian Habsburgs. The complete power structure also involved Catherine II of Russia and to some extent, England. We shall try to clarify this situation by discussing some of the individual states, separately.

PRUSSIA

The Junker landlords of Prussia distinguished themselves by competent management and their quick adoption of improved agricultural techniques. (Ref. 24) On the political side, the Prussian Elector Frederick III², son of the Great Elector, had himself crowned King Frederick I of Prussia in 1701, but his extravagancies merely hastened bankruptcy of the state. Some 300,000 deaths from plague in 1709 did not help the situation. (Ref. 25) Then came Frederick Wilhelm I (1713-1740), an austere king who hammered out a military power. At his death Prussia had the 4th largest army in Europe and strong financial resources. He was a friend and ally of Peter the Great of Russia, but in his personal life he was eccentric and unfortunate³. He suffered from a severe, combined form of porphyria, a genetic disease which can affect skin and visceral organs at times, along with great abdominal pain. He was subject to sudden, uncontrollable attacks of rage at which times he might even beat his own children. His eccentricities included hatred of everything French and he had a hobby of collecting giants from all over the world, some 1,200 of them, whom he formed into two battalions of grenadiers. On his death in 1740, his son Frederick II became king and initiated the Francophile tradition.

At the end of the Great Northern War, which will be discussed again later, Prussia had acquired the city of Stettin and some Baltic islands. Having been raised as a warrior prince, Frederick II, later to be called Frederick the Great, hastened to put the Prussian war machine to work by invading Silesia and provoking war with the Habsburg Empire. (Ref. 26) He gained not only Silesia but after three wars with the Austrian Empress Maria Theresa, also gained a part of Poland. The Seven Years War (1756-1763), the last one with the Habsburgs, involved Prussia, Hanover and England on one side and France, Austria and Russia on the other. After initial victories through Saxony and Bohemia, Frederick began to meet defeat and was pushed back so that at one time the Russians even occupied Berlin. In the final Peace of Hubertusburg, Saxony was restored to its pre-war size, Silesia was retained by Prussia and Frederick agreed to vote for Maria Theresa's son Joseph for emperor when the occasion developed. Frederick estimated that that war alone cost him 853,000 troop casualties and 33,000 civilian deaths. (Ref. 27) Furthermore, he had developed a great fear of Russia and started a campaign of vilification while at the same time plotting that future relations with that country should be based on friendship. Thus, in 1770 he made an alliance with Catherine the Great. In the newly gained Silesia, the government combined with land owners to invest in mining, iron and textiles. In Prussia proper Berlin had 140,000 people by 1777. (Ref. 28) Imported techniques, including artificial drainage and canalization particularly, allowed considerable new land to be brought under cultivation and thus added wealth. (Ref. 29)

Frederick the Great actually hated the German language and thought that anything French was great. He had a long and close relationship with Voltaire, as fellow philosopher, poet and confidant. At one and the same time he had a great mind, while being a benevolent king and a great general. But he was also an untrustworthy ally and a power-mad monarch.

The advancement of Prussia as the dominant northern Germanic state did not occur by accident. Frederick William II came to the throne in 1786 and when France declared a new war on Austria in April of 1792 Prussia and most German states sided with the new Emperor Francis II. Austro-Prussian forces met severe defeat at Valmy, allowing the French to take the offensive on all fronts. Russia invaded Poland and in spite of the deterioration of the

Prussian armies, in the resulting last partition of unfortunate Poland, Warsaw and environs with its 1,000,000 people fell to Prussia. In the Peace of Basel of 1795 Prussia recognized the legal status of the republican government of France, while the latter promised neutrality of the German states north of the Main. (Ref. 30)

But Prussia was not all militarism. In 1717 Frederick William I had made primary education compulsory and in 20 years he founded 1,700 schools. German universities became excellent, although German literature suffered some from lack of national consciousness and the influence of French among the aristocracy. German intellectuals remained cosmopolitan and considered nationalism as a "political monstrosity". The development of science and philosophy shared with powerful secularizing forces in weakening the influence of religion on German life. Art and architecture was not at its best, but music was supreme, with Handel and Bach. Bach's works are said to be the Reformation put to music and he is accepted as the "greatest musical poet that has ever existed". (Ref. 31) Christian Thomasius furthered the cause of the German language by lecturing at the university in German, rather than Latin. A literary revival was initiated near the end of the century as the works of the great Johann Wolfgang von Goethe began to appear. Frederick von Schiller contributed some fine dramas. Gottfried Leibniz, scientist and mathematician, founded the Academy of Sciences.

Map taken from Reference 97

BAVARIA

Bavaria continued to be ruled by the Wittelsbach family. In 1777 the Elector of Bavaria, Joseph Maximilian, died childless and the nearest heir, another Wittelsbach concluded a pact with Emperor Joseph of the Habsburgs whereby most of Palatinate and northern Bavaria went to Austria. Other Wittelsbachs, along with Frederick II of Prussia, anxious to keep things in balance, protested Austria's aggrandizements and opened the War of the Bavarian Succession. In a year Bavaria had regained her territory. At the end of the century, however, Bavaria became the chief battle field of the Spanish War of Succession and Austrian troops devastated the land. In 1799 Elector Maximilian I united all Wittelsbach lands and allied himself with Napoleon, as a protection against Austria.

It is interesting that in spite of some food shortages, the potato was slow to be adopted in middle Europe. In 1795 the poor of Munich refused to eat a supposedly scientific soup containing potatoes. (Ref. 32) At the end of the century there was one market in Bavaria for every 7,300 inhabitants. (Ref. 33)

SAXONY

The young Elector of Saxony, Augustus II, had also been elected King of Poland in 1697. In August of 1706, as part of the Great Northern War, the Swedish army crossed the Silesian frontier to march on Saxony itself, to permanently dispose of the Elector Augustus. The Saxon governing council, having already sacrificed 36,000 troops, 800 cannon and 8,000,000 lives in an effort to keep Augustus on the throne of Poland, wanted no more trouble and signed the Treaty of Altranstadt, which disavowed Augustus and agreed to supply the Swedish army during the coming winter and to turn over all Swedish "traitors" harbored in Saxony, a feature which finally resulted in the horrible death of the Livonian patriot, Patkul - first tortured on the wheel, then beheaded and quartered. While resting in Saxony in 1707 the Swedish King Karl XII was visited by John Churchill, Duke of Marlborough, who already had Louis XIV more or less "on the ropes" and then wanted to scout the Swedish king's intentions and get a look at his troops.

Elector Augustus II eventually did return to his people and then he and Karl XII got along well. Actually they were first cousins, as their mothers were sisters as Danish princesses. (Ref. 34)

In spite of all the warfare, Elector Augustus II continued the policies of his predecessors and collected fabulous works of art, so that Dresden eventually became known as Florence on the Elbe. His son and successor Augustus III carried on the same tradition. (Ref. 35) Dresden, Leipzig and Chemnitz specialized in porcelain, silk, armaments and textiles, but the first cotton spinning mill was not started until 1794. Only 5 of Saxony's 200 towns had over 10,000 people. The Swiss Albrecht von Haller, a disciple of the Dutch Boerhaaves settled in Saxony and helped to create the University of Goettingen. He became a great physician, physiologist, botanist and neurologist. (Ref. 36, 37)

Saxony served as a battleground for many of the Prussian campaigns and in the Second Silesian War of 1744 Frederick II took 80,000 men through Saxony to invade Bohemia.

Shortly thereafter Saxony joined an alliance with Austria, England and Holland against Prussia, again on the wrong side, so that at the Treaty of Dresden, Saxony was forced to pay Prussia 1,000,000 rix dollars. Once again in the Third Silesian War (the Seven Years War) Frederick invaded Saxony with 67,000 men and defeated the combined Austrians and Saxons, taking 18,000 of the latter as prisoners. At the final peace, however, the original status of Saxony was preserved. In the War of the Bavarian Succession (1778) Saxony even joined Prussia, with Prince Henry joining Frederick in another invasion of Bohemia, but no real battles with the Austrians developed. For the remainder of the century, Saxony continued to oppose the grandiose schemes of Emperor Joseph.

HANOVER

In this century Hanover, in northern Germany, had about as much power as Denmark, Prussia or Saxony. Its status was helped when George, the Elector of Hanover, became George I of England. He never did like the English, nor they him, although they would take any sovereign Protestant over a Catholic. George spent most of his time in Hanover and used the English navy and money to try to make Sweden negotiate peace with Denmark and the German states on the Baltic. (Ref. [38](#))

LESSER STATES OF GERMANY

Like Bavaria, Baden and Wuerttemberg became battlefields at the end of the century as the French forces fought Austria. Throughout these years, although their princes had difficulty acknowledging it, these lesser states of Germany lost more and more power and influence. The Rhineland of west Germany became the first industrial area, with the first steam engine installed in a lead mine near Duesseldorf in the Duchy of Berg in 1751. (Ref. [39](#))

AUSTRIA / HUNGARY / CZECHOSLOVAKIA

Although all German states were nominally subject to the Holy Roman Empire, the real heart was the Austro-Hungary-Bohemia region, ruled by the Habsburgs in Vienna. In 1711 Austria lost 300,000 people to the Black Death and another Turkish army was near their border. The latter were put to rout by Prince Eugene of Savoy, who had become a great militarist for the Habsburgs. His

success at this time was in part due to Austrian cavalry using fine Arabian horses. (Ref. 40) Emperor Joseph I, the elder son of Leopold, had a premature death and Karl (Charles), trained to become king of Spain, now had to be Austria's emperor as Karl (Charles) VI. Raised as a Spaniard, he remained such. The Spanische Reitschule (Spanish Riding Academy) is a remnant of his Spanish court. His death in 1740 marked the end of the male line of the Austrian Habsburgs, but it was the beginning of Austria's greatest era. (Ref. 41) Interpreting Karl's death as indicating a coming weakness in the empire, Frederick II of Prussia was tempted to move on Silesia for the First Silesian War⁴. (Ref. 42)

When Karl VI's daughter became Empress Maria Theresa, the Austro-Hungarian Empire included all of present day Austria except Salzburg, Hungary, Bohemia, Moravia, Silesia⁵, Transylvania, Croatia, Slavonia, Dalmatia, Istria with Fiume and Trieste, parts of southwestern Germany, Belgium, Lombardy, Tuscany, Sardinia, Peacenza and Parma. The intrigues and power politics of this empress involved not only Frederick the Great but Catherine II and Peter of Russia. Their wars for prestige and for portions of Poland seemed almost without end. Austria's part in the Seven Years War, which exhausted the country, is more fully explained in the sections on GERMANY, FRANCE AND ENGLAND. In 1772 Maria Theresa shared with Prussia and Russia in the first partition of Poland.

Austria, itself, with 6,000,000 people was prosperous. All land was owned by nobles or clergy and tilled by serfs. The nobles were not particularly religious, but worked to promote the Catholicism, which helped their serfs to accept their earthly lot. Industry was initiated as Maria Theresa founded a woolen manufactory in Linz, employing no less than 15,600 workers (26,000 by 1775) although about 2/3 were spinners and weavers working at home. (Ref. 44) The empress was a great patron of Mozart and he played for her at Schoenbrunn Castle. The Dutchman Gerhard van Swieten, another pupil of Boerhaave, was called to Vienna by the empress to be her personal physician and he started a medical school which drew flocks of students from all over Europe. Incident to this was the building of the famous Allgemeines Krankenhaus in 1784 as a hospital for teaching and caring for the underprivileged. (Ref. 45)

After 1765 Maria Theresa⁶ shared her power with her son Joseph II until her death in 1780. Joseph anticipated the welfare state by 150 years. The spate of reforms was torrential. He

abolished serfdom and torture and eliminated heresy as a crime. He made German the official overall language, and antagonized his nobles, his mother, and even the pope. Joseph was followed by Francis II, who engaged in a constant and losing war with the advancing French. At the Peace of Basel, Austria agreed to French control of almost the entire left bank of the Rhine and gave up Belgium.

Although a part of the great empire, Hungary did not lie quietly. The Rakoczi rebellion from 1703 until 1711 was a Hungarian revolt against the Imperial Crown of Austria. In the end it only resulted in more disunion among the people. By that time Karl (Charles) VI was emperor and he sincerely wanted the Hungarians to be treated generously. The reign of Maria Theresa is considered by some Hungarian historians as a period of rest and recuperation, but by others as one of stagnation. Population and immigration both increased rapidly during the period of peace. The wealth of the Catholic Church and the size of the mansions and estates of the great nobles also increased, while the economy was still agricultural and industry was kept down by the Austrian rulers. The Protestant Church was suppressed and no Protestant could enter public service. By the end of the century only half of the magnate class was Hungarian and even they spent much time in Vienna and Paris, intermarried with German-Austrian and Bohemian aristocracy and often forgot or didn't even learn their Magyar language. The middle nobles were the ones who remained home and kept the national spirit and the language alive. The immigrants were from all the surrounding states but the greatest number were from south Germany and, in general, classed together as "Swabians". In the 1760s and 1770s there were 50,000 German immigrants and another 25,000 in the 1780s. (Ref. 46) By the end of Maria Theresa's reign the 3,350,000 Magyars made up 35% of the total population and were chiefly in the central part of the country. There were 1,500,000 Romanians, 1,250,000 Slovaks, 1,000,000 Germans and 750,000 each of Croats and Serbs. The latter were always a thorn in the Hungarians' flesh. Although Joseph II replaced Latin with German as the language of administration and schools, when his brother Leopold II became emperor in 1790 he reversed this decree.

Bohemia's fate was similar to Hungary's. Subject to the Habsburg autocratic rule the life of both Bohemian and Moravian peasants

was hard, with compulsory labor accepted. Persecution of Jews began in 1744, with some fleeing to England. (Ref. 47) Near the end of the century the Czechs began to feel a spirit of national unity and started ideas of freedom. Leopold II tried to conciliate them, but he was the last Austrian ruler to be crowned King of Bohemia.

To complete our story of the 18th century Habsburg Empire, we must relate that upon Joseph II's death, his brother, who had succeeded their father as grand duke of Tuscany, became Emperor Leopold II. The state was in some disarray and he had to repeal most of Joseph's radical reforms. After reaching an agreement with Frederick William II of Prussia, he negated the old alliance with Catherine of Russia and concluded a separate peace treaty with Turkey at Sistova in 1791. He also marched troops into the Austrian Netherlands and suppressed the Belgian Republic. He was succeeded in 1792 by his son, Francis II, who was soon confronted by the French Revolution. His armies were defeated by Napoleon and by the Treaty of Campo Formio of 1797 he ceded the left bank of the Rhine to France, but obtained Venetia and Dalmatia. In 1798 he joined the Second Coalition against France and was defeated again.

SWITZERLAND

In 1715 the Swiss Federation was made up of 13 Cantons, a complex of three peoples, four languages and two faiths. Most of the Cantons were oligarchies, with very limited suffrage, but serfdom had almost completely disappeared. Bern was the largest canton, embracing approximately 1/3 of Switzerland. Religion was half the government and half the strife. (Ref. 48) The two rival religions - Calvinist and Catholic – exuded hatred and shackled the mind. Some Cantons prohibited any but Catholic worship and some forbade any but Protestant. Geneva was not a Canton, but a separate republic with French speech and Calvinist faith. The emigration of Huguenots to this city was a great boon.

Map taken from Reference 97

In 1789 Switzerland was overrun by the armies of Napoleon and he set up a centralized Helvetic Republic, which was in close alliance with France and all the old liberties of the Cantons were wiped out. The most famous Swiss of the century were Jean Jacques Rousseau, philosopher, author and political theorist, who developed

a persecution mania, living some in Switzerland, some in England and some in France and Albrecht von Haller, who did most of his medical work in Saxony.

WESTERN EUROPE

In Western Europe this was a century of warfare, at first involving Spain, France and England primarily and then the latter two especially near the end of the century.

The War of the Spanish Succession lasted from 1701 to 1714, beginning with the death of the last Spanish Habsburg, when Leopold of the Austrian branch of the family opened the struggle trying to get the Spanish inheritance of Carlos II, by invading Italy. The idea was to keep Louis XIV's grandson Philip off the Spanish throne and in his effort he was encouraged by England and the Dutch Republic. The Holy Roman Empire, Portugal and Savoy also declared war on France, while Spain, itself and France were backed by the Electors of Bavaria and Cologne. The antagonists fought most of the battles in the beautiful countryside of Bavaria. At the end, the compromise Peace of Utrecht allowed Spain to keep Philip, but the Spanish Netherlands went to the Austrian Habsburgs and Spain's previous Italian territories went to Savoy. (Ref. 49)

The new luxury of the 18th century meant a change in the living conditions of both rich and poor. Of primary importance was the separation of living quarters from the workshop or business. Up until this time merchants' and artisans' houses had the shop on the lower floor, the master's dwelling above and the workmen's or apprentices' rooms above that. (Ref. 50) Industrial activity was widespread so that there was not a town or City without its own looms, forges, brick or tile works or sawmill. In some areas there were huge concentrations of workers: 30,000 in the coal industry in Newcastle; 450,000 weavers in Languedoc; 1,500,000 textile workers in five northern French provinces. But commerce and its accompanying wealth were in the hands of but a few, 4 or 5 merchants in Seville, 8 or 9 in Le Mans and less than 1% of the population of Marseilles. Similarly, the nobility of Lombardy made up 1% of the population, but possessed about 1/2 of all landed property. (Ref. 51)

SPAIN

We have mentioned Spain's problem of establishing a new ruler after the death of the imbecile king Carlos (Charles) II in the remarks just above. Practically no battles were fought on Spanish soil. Although both the English King William and the Emperor Leopold died during the war, it dragged on with Eugene of Savoy handling the Habsburg war machine and the great Duke of Marlborough (John Churchill) handling English policy. Spain did lose Naples, Parma, Sardinia and Milan to Austria, while Sicily went to Savoy and Gibraltar and Minorca went to England. In the last 3/4 of the century Spain was more or less involved in continuous wars with various European alliances over various territories and successions - the War of the Polish Succession, the War of Jenkins Ear with England, the War of the Austrian Succession, the Seven Years War, then war with France, then with France against England again. At the end of that last one, at the 2nd Treaty of Ildefonso, France obtained Louisiana from Spain. In spite of all, the Spanish overseas empire brought wealth and prosperity throughout the century. Spain made war on American gold.

Map taken from Reference 97.

Philip V, grandson of Louis XIV was the first Bourbon on the Spanish throne. A melancholy man, he was dominated by women, first the *princesse des Ursins*, lady in waiting to his first consort, Maria Luisa of Savoy, then by his wife Elizabeth Farnese, who in turn was dominated by the chief minister, Cardinal Alberoni. In the War of the Polish Succession Naples and Sicily passed to Don Carlos (later Carlos III), son of Philip and Elizabeth. In the War of the Austrian Succession Spain obtained Parma and Piacenze for Charles' younger brother, Philip. Philip V was succeeded by Ferdinand VI, his son by Maria Luisa. In the years before the Seven Years War both France and England had sought a Spanish alliance, but Ferdinand, by manipulating his ministers, kept Spain out of that war during his lifetime. He died in 1759 and was followed by his half brother, Carlos (Charles) III, who finally succumbed to pressure from France and got involved in the war, which drained Spanish revenues and resulted in England receiving Florida, although he did obtain Louisiana from France. Because he helped the Americans some in their revolution, Carlos re-obtained Florida and picked up Minorca from England at the Treaty of Paris of 1783. Carlos III is

regarded as the greatest Bourbon king of Spain, but Carlos IV, who followed, was ineffective.

The best silk in Europe was grown in Valencia, where there were 5,000 looms by 1787. By 1790 there were a hundred cotton factories in Catalonia, with some 80,000 workers, chiefly women. Trading, even in slaves, was generally farmed out to Genoese contractors and French merchants dominated Seville. (Ref. 52) Galicia had 5,243 watermills and 12 windmills in an area of 2,000 square leagues and a population of 2,000,000. (Ref. 53) The Basque country was tending to become a national market. In the end, even Church property and estates went on sale and overall, land ownership became concentrated in a few hands and the poor became still poorer. (Ref. 54)

PORTUGAL

Portugal had now practically abandoned the Indian Ocean, except for its colony at Goa, India to which it occasionally sent a boatload of convicts. This was a century of Portuguese alliance with England. The Methuen Treaty of 1703⁷ established Portugal's wine trade and admitted English manufactured products without duty. Many of the vineyards in the Oporto area were English owned and England admitted the wines at markedly reduced duties, much less than for French wines. (Ref. 55) The English penetration of the country was such that some Europeans referred to Portugal as an English colony, and it caused some warfare with Spain again and again. Lisbon had expanded into a huge city, with the rich becoming excessively so and the poor-more wretched. Shanty towns grew up around the margins where once there had been fields. There were as many as 10,000 vagrants in that city. (Ref. 56) But Lisbon was destroyed by a great earthquake in 1755, followed by a seismic wave with the flooding of the Tagus River basin and a great fire, so that all the city's treasures disappeared, along with the thousands-of deaths. (Ref. 57) The Jesuits were expelled from Portugal in 1759. Later, at the time of the French Revolution the nation was drawn into the war through its English alliance.

FRANCE

Like the 17th, this was a French century and French culture was as

encompassing as French power. (Ref. 59) In the last years of his reign, Louis XIV drifted to the propitiation of the papacy, with continued and aggravated religious persecution. Great numbers of most valuable Protestant subjects left France, taking arts and industries with them, leaving mainly Catholic believers or Catholic atheists behind. Other serious troubles accumulated at the same time. The year 1709 was perhaps the worst year France had known. All the rivers and the Atlantic coastal waters froze, with the winter wheat, vines and fruit trees killed. Children starved to death and both public and private finances were in desperate ways. Then in 1711 the Grand Dauphin, Louis' only legitimate heir, died of small-pox and within 11 months the Dauphine and 2 of her 3 sons died of measles, leaving only the youngest grandson Berri. Even he died in 1714 after an accident on a horse, leaving only his nephew as heir to the throne. Thus, when Louis XIV died with a gangrenous leg in 1715, this great grandson became Louis XV, with a great uncle, Philippe Duc d'Orleans as regent. (Ref. 60) There resulted much unrest among the common people and a tumultuous workers' strike of 1716 in Abbeville had to be put down with armed troops. (Ref. 61) During that interim Regency, a transplanted Scot, John Law, attempted to redeem the bankrupt finances of France by issuing paper money on the credit of the state, up to twice the value of the national reserves in precious metals and land. A central banking system was necessary and eventually established. The idea was basically sound, but in the end the entire system collapsed because of overspeculation by all of the people in Law's additional scheme of establishing a company to develop the Mississippi basin in America. In 1721 France had perhaps the world's worst stock market crash, as the leading value of stock in that Mississippi development company fell from 12,000 livres to 200. Durant (Ref. 62) says that the Regency was, morally, the most shameful period in the history of France. Religion disgraced itself by having immoral men at the top; government was corrupt by having immoral men throughout.

In 1707 almost 70,000 cattle were sold annually in Paris and later in the century there were some 21,000 horses in the city. By 1717 the capital had about 500,000 people, the third largest city in Europe, but the streets were narrow and crowded, the noise deafening and the smells from human excrement dumped from windows and piles of manure and slaughtered animal carcasses

were unbelievable. When the Swiss guards prevented Parisians from relieving themselves under a row of yews in the Tuileries, they simply went to the banks of the Seine, which was just as bad. Straw was put daily on the streets and the old straw pulled up and simply dumped in the river. After midnight, when the candle lamps on the streets went out they became very dangerous. The same situation could be found in all towns, large and small. A bathroom in a house was a rare luxury. Fleas, lice and bugs conquered Paris as well as London and other European cities. (Ref. 63) High society was consumed with gambling - pharaoh, dominoes, checkers and chess were all played for high stakes. (Ref. 64) An average of 20,000 people died in Paris every year, even after the 1780s, some 4,000 of them ending their days in the poor-house. 7,000 to 8,000 children out of about 30,000 births were abandoned and depositing these at the poor-house became an occupation in itself. Hardly anyone in Paris took baths and those that did confined them to one or two a year. (Ref. 65)

Mass consumption of low quality wine became commonplace, even at the times of famine and drunkenness was everywhere. In the country the peasants were poverty stricken and there were a series of disastrous harvests between 1773 and 1789. Overall there were at least 16 general famines during the century as well as numerous local ones. The last great western European plague epidemic occurred in Marseilles in 1720 (but it continued in eastern Europe). (Ref. 66, 67) While glass was used in window-panes in Paris, oiled paper was still used for windows in Lyons and various provinces. But even in the midst of relative squalor, France began to set the fashion for dress for the whole of Europe. Dressed French mannequin dolls were sent far and wide for dressmakers to copy and one aspect of progress was the extension of decently surfaced highways. (Ref. 68)

The larger towns continued to have fairs and sometimes the latter simply took over the former. The modern day "rock" concerts may have been foreshadowed by some of these. At times 50,000 people would invade a town and it took all the police available to keep a semblance of order. "Fairs meant noise, tumult, music, popular rejoicing, the world turned upside down, disorder"⁸. At about the same time there were allegedly 91,000 persons without homes, except temporary shacks, and without visible means of support. (Ref. 69) There was a huge volume of road transport as

well as canal traffic. The waterway network was incomplete, requiring many portages. Between the Lyons and the Rhone rivers alone some 400 to 500 oxen teams were employed permanently. But to return to government affairs, when Louis XV matured he was more concerned with chasing women than government and continued the "Grand Monarchy", oblivious to the restless ideas developing in the populous. For at least a decade of his tenure, France was in essence ruled by his mistress, Mme. de Pompadour, born Jeanne Poisson and one of the most remarkable women of history. She had an extensive influence on French and European art as well as government and it was the period when French influence reached the peak of its effect on European civilization. Pompadour helped pave the way for the ultimate expulsion of the Jesuits from France and played a part in the Seven Years War. In that encounter, France helped Austria, on the losing side, and due to its extension in North America, France lost Canada to England and also lost territory in India. That was the time of the Swiss Rousseau, who did much of his writing in France, eulogizing the life of primitive man and it was also the period of Voltaire, the great Mockery, born Francois Marie Arouet, playwright, poet, historian, philosopher and confidant of kings and Voltaire actually spent some time in the Bastille because of a poem he wrote about the Regent and his daughter, the Duchess de Berri, But there is much misconception about the Bastille. It was actually a luxurious prison and incarceration there carried no particular dishonor. Most prisoners were aristocrats or gentlemen, who were treated there according to their rank. (Ref. [71](#)) Other famous men of the century included Boucher, known for his nude paintings, Chardin, who depicted a still healthy France in labor and family life and Quentin de La Tour, who painted the leading personalities of the age. Charles Louis de Montesquieu was a powerful novelist, influencing religion and government. Denis Diderot and D'Alembert published **Encyclopedie**, in 1750. This taught Europe the meaning of such things as "rights", "authority", "liberty", "equality", etc., and gave a tremendous storehouse of knowledge.

From the military standpoint perhaps nothing was more important to France than the development in the middle of the century, by Jean Maritz and his son, of the technique of casting cannon as a solid piece of metal and then boring out the barrel. The advantages of these guns, with straight and uniform bores, were

enormous; Safety, accuracy, lightness (less thickness and thus more maneuverability) and reliability were all enhanced. The closer fit of cannonball to gun tube also meant less "windage" allowance and a smaller powder charge could be used to obtain even greater velocity. Using these features, Jean Baptiste Vacquette de Gribeaval created a powerful field artillery previously unknown in Europe. (Ref. 72)

A thumb-nail sketch of life in France before the revolution may be of value. One basic conflict involved the effort of philosophers and others to end ecclesiastical control over education. The great majority of the peasants could not read and even in the colleges the curriculum paid little attention to advances of knowledge; studies were almost entirely religious. The French Revolution can be traced back to the ambitious absurdities of Monarchy, but also to the revolt of reason against Catholic Christianity as it existed then in the nation. Although the lower classes, still dominated by the church, led moral lives for the most part, this was not true in the aristocracy. Adultery was usual, as a substitute for divorce. Children were seldom seen by their aristocratic parents; men were slaves to women, women to fashion, and fashion was determined by couturiers. The French language had now become the second language of every educated European. Frederick the Great used it regularly, except to his troops. Gibbon wrote his first books in French. (Ref. 73) Between 1715 and 1771, French foreign trade, previously very low, increased eightfold. (Ref. 74) By the end of the century there was no shortage of money, at least in some parts of France. In Marseilles, for example, men who offered money at 5% found few takers. Of course in France, even at this late period, merchants who borrowed money were looked at with some suspicion. (Ref. 75)

In the reign of Louis XVI, in 1789, the king's treasury was empty, however, in spite of high taxes, which were born by the middle class and peasants and the king found it necessary to call a National Assembly in an effort to find new sources of money. The Assembly traditionally was composed of nobles, clergy and the "third estate" (middle class), each group to have, in effect, one vote. Since it was apparent that the non-tax paying nobles and clergy could thus dominate the assembly, the third estate withdrew, held their own meeting and vowed to give France a constitution and a reform administration. Mobs in Paris took up the new cause and storming

the Bastille to obtain arms, originally just to protect themselves, they more or less inadvertently started the French Revolution - a revolution of the "common man" against the monarchy, the nobles and the clergy. From 1789 to 1791 the revolution held its own and France was a limited monarchy with the king kept virtually a prisoner in a diminished state in the Tuileries, while the National Assembly, now reorganized as to voting privileges, ruled the country with relative peace. The Assembly instituted reforms in the penal code, stopped heresy persecutions, opened the army ranks to all, while arranging a state administration for the church. The heads of the church were prohibited from being members of the Assembly, however, and this actually weakened the central government. One of the great, farsighted statesmen of that period was Mirabeau, but unfortunately he died in 1791 and extremists then began to take control.

In that same year of 1791 the royal family escaped and tried to join a loyal army on the east border, but they were identified and returned to Paris under guard. The extremist Jacobins - Robespierre, Danton and Marat - now began to dominate French affairs, with their advanced ideas. Robespierre was a disciple of Rousseau and himself a lawyer; Danton was a lawyer; and Marat was a scientist and medical man of sorts. The mobs of the streets absorbed their radical ideas. At the same time, France declared war on Austria for a strange mixture of reasons and then Prussia declared war on France "to restore the monarchy". The Jacobin "commune" imprisoned King Louis XVI and reconvened the Assembly to frame a constitution. With the Prussians advancing, however, the mobs took over, emptied the prisons and a general slaughter began. A French army stopped the Prussians at Valmy, but the bloody fighting on the streets of Paris continued. The National Convention proclaimed France a republic and in a few months Louis was beheaded. Wild with success the mobs formed armies dedicated to "republicanizing" all Europe and while singing the Marseillaise they spread out to Brussels, Holland, Savoy, Switzerland and south Germany and they declared war on England. Under their new general, Napoleon Bonaparte, a brilliant young artillery officer, the republican armies fought forces of Savoy and Austria in 1796 and won most of northern Italy. In addition, however, war continued at home between the republicans and the loyalists and the double war provided the fear and panic that made it easy for the Jacobins⁹ to

institute the reign of terror. While the Constituent Assembly had been discussing the Declaration of the rights of man, food crises and food riots occupied most of the common people. While a construction laborer earned 18 *sous* a day, his wife had to pay 14 1/2 *sous* for a 4 pound loaf of bread. This has ever been perhaps both the cause and the result of revolution. (Ref. 76) Attempts of the monarchy to use government troops against civilian crowds created an awkward situation, as a volley of muskets at close range was murderous and there was yet no other method of crowd control. The French custom of having aristocratic officers, who traditionally kept considerable distance from their men made it easy for the non-coms and regular soldiers to rebel and support the new regime against the old. After Napoleon took control, enlistment in the army was an escape from the very high unemployment which was part of the over-population problem of the country. (Ref. 77)

All royalists were eventually slaughtered and Robespierre ruled with blood, consumed by a passion for a new order of life. He attempted to equalize property and abolish profit. Divorce was made easy and illegitimacy was approved. A new calendar was made. But somewhere in all this Robespierre became insane and was finally killed by his own group. The terror came to an end after 4,000 people had been executed. A new constitution of 1795 provided that France should be ruled by a two-house legislature and five executives known as Directors. A rapid recovery of market-regulated economic activity took place.

After his Italian victories, Bonaparte took an army to the Mediterranean, invaded and initially conquered a part of Egypt. He did this by making the Directory believe that he was indirectly attacking England by breaking their lifeline, but it is probable that the real reason for that peculiar move was locked into Napoleon's own dream of empire. He took scholars and scientists with him and these men did start the science of Egyptology, initiate the breaking of the old hieroglyphics' code and made some striking reforms in Egyptian public health. A combination of some reinforcement Turkish armies and a British fleet under Lord Nelson cut off Napoleon's ships and forces, however, and only he managed to escape to France at the end of 1799. In spite of leaving his men behind, he still managed to arrive as a hero, took over the Directory and conferred the administrative power to three consuls.

The French Revolution brought down the European Old Regime.

Neither the previously existing radical ideas nor new technical processes could have transformed European society so rapidly and so fundamentally. In the last decades of the old regime, Russia and eastern Europe were drawing abreast of the political organization of other European states and were on the verge of tipping the scales eastward. The revolution changed this drift. Of course it was costly. Approximately 600,000 French soldiers died between 1792 and 1799, the survivors remaining outside France, living on plunder.

At the end of the century several great scientists emerged in spite of the turmoil. Laennec developed the stethoscope, Pierre Simon Laplace was a great astronomer and statesman and Lavoisier worked out a new theory of combustion and conservation of matter in chemical reactions while repeating many of Priestley's oxygen experiments with a better understanding of their meaning. Theophile de Bordeu held that the stomach, heart and brain each secreted a material to the blood stream necessary for health and thus became known as a pioneer in endocrinology. Dentistry became a separate, true profession with the work of Pierre Fauchard. His publication *The Surgeon Dentist* became a standard text for generations. (Ref. 79)

THE NETHERLANDS AND BELGIUM

At the beginning of the century Holland built ships for all of Europe and we have seen how Peter the Great of Russia not only went there to personally learn shipbuilding but then transported a number of Hollanders to Russia to establish shipyards there. In 1717 with 600,000 people¹⁰, Amsterdam was the second largest city in Europe. (Ref. 80) It was a beautiful city but had one bad district, the Jordaan in the southwest, where foundations were poor and canals too narrow. Jewish immigrants (*Marranos* from Portugal and Spain) and French Huguenots all congregated there. (Ref. 81) The great Amsterdam Exchange Building was finished in the preceding century and now up to 4,500 people were said to "crush" inside about noon every day. It was the busiest exchange in Europe, while the city, itself, was the center of the Amsterdam-London-Paris-Geneva banking supremacy. (Ref. 82)

William of Orange, also king of England, died in 1702 without children and that ended the direct line of the House of Orange. The office of stadtholder and commander-in chief was allowed to pass

into obedience and Marlborough of England was appointed Deputy Captain-General of Holland. In 1704, with Holland's consent, that Duke of Marlborough penetrated Germany clear to the Danube just north of Munich, with British paid soldiers. At that point he joined forces with armies of Eugene of Savoy and Austria. The purpose was to strike at Bavaria, which was then an ally of France, and then take Vienna. In the great battle of Blenheim, the French lost 40,000 men and the terror of the French armies was broken. At home the Dutch Republic finally succumbed under the financial burden of protecting itself during the coalition wars against Louis XIV. Bearing the lion's share of the Anglo-Dutch army between 1689 and 1713, it had to abandon naval superiority to the English. After the Peace of Utrecht (1713) England reaped the profits of the opening up of Spanish America and the Dutch sank to the level of a second rate power. Again in 1743, however, the Hollanders had to join England and Austria against Russia and France, because of direct threats by France in the Austrian Netherlands. Holland's small population and scant natural resources were inadequate to support the status of a great power for long. By 1784 there was a three-way struggle going on in Holland for control. The middle class and the patrician families, who controlled the Estates General, were trying to eliminate a great part of the traditional powers of the stadtholder. In 1787 Prussian troops intervened and restored the stadtholder to even greater powers than before. (Ref. [84](#))

When the French revolutionists moved into Holland, however, Dutch independence was lost as the French took Amsterdam (1795) while the Dutch fleet was captured while it lay frozen in harbor ice.

The greatest intellectual achievement in Holland in this century was probably in medicine. The medical school at Leiden had two of the great teachers of the times in Hermann Boerhaave and the anatomist Bernhard Siegfried Albinus. Their students became the leaders in the profession all over Europe. (Ref. [85](#))

The Treaty of Utrecht, which ended the War of the Spanish Succession in 1713 also ended a long series of Spanish-French wars over Belgium and that country then went under Austrian Habsburg rule as part of the Holy Roman Empire. Economic recovery followed so that by 1787 the people felt strong enough to revolt against Emperor Joseph II and the Republic of the United Belgian Provinces was formed in 1790. In the same year, however, the emperor re-

conquered the country. After the French Revolution, Belgium was incorporated into France (1799) in spite of resistance of Hanoverian, Prussian, Austrian, and Hessian forces.

BRITISH ISLES

ENGLAND AND WALES

The population of England and Wales grew to over 9 million by the end of this century. (Ref. [86](#)) With the death of King William in 1702, Mary's sister Anne reigned until 1714 in a time known as the Augustan Age of England, because of the literature of Pope, Swift, Addison and others. This was also the time when the Duke of Marlborough defeated a French army in part of the War of the Spanish Succession, in which England gained Gibraltar, Nova Scotia and Newfoundland. Parliament became the supreme power in the state and on Anne's death, decided to pick a less competent monarch, choosing the Elector of Hanover, George I, who could speak no English and would not learn to do so. He spent most of his time in Hanover and there was no love shared between him and the English people. The Great Northern War was in progress and George I decided that Sweden must make peace with Denmark and the German states so that then they could drive Russia from the Baltic. After English money and the Royal Navy had induced a Swedish-Danish peace treaty on July 3, 1720, a large armada was sent into the Baltic, but never did actually engage in battle. The British involvement faded when the South Sea Company and its stock collapsed, as will be described in a later paragraph. It was at that time that Sir Robert Walpole, the Whig leader and the first prime minister and master politician, used adroit maneuvers to solve the financial crisis. (Ref. [87](#)) The monarchy and the House of Commons both lost power at that time as the House of Lords ruled England.

There was a period of increased overseas expansion in America (Canada) and India as the result of England's participation and France's losses in the Seven Years War. Winston Churchill (Ref. [88](#)) insists on calling this the First World War because there were sea battles with France in all parts of the globe, as well as land battles in Germany and in America. Although George II had taken over the throne in 1727 and was more active in British affairs than his father had been, England's leader was William Pitt the Elder, Secretary of

State, who ran the war from his office in London. Although having initial losses in America to the combined forces of the French and their Indian allies, by 1759 the British navy had captured Guadeloupe, the richest island in the west Indies, the army of Amherst had taken Ticonderoga and Fort Niagra and the combined services had obtained the key fortress of Quebec. In another year, the French were out of North America. King George II died in 1760 and George III preferred the minister Bute over Pitt. France, seeing that Pitt was losing influence, made a new alliance with Spain, hoping to again have a chance in America. Upon Pitt's resignation, England declared war on Spain and further victories resulted, including the taking of Manila. At the Peace of Paris in 1763, British acquisitions were considerable, although the naval power of France had been left untouched and she retained bases in the Gulf of St. Lawrence. (Ref. 89)

At home important changes took place in agriculture, farming and transportation. Rural life in England up to about 1715 was very much as it had been for a thousand years, each household being a self-contained economic unit. But things changed as a factory system made England the workshop of the world and machines began to take the place of workers. The steam engine, invented by James Watts of Glasgow in 1760, was of new design, having the piston driven by live steam. That, with the use of coke in the steel industry and the development of steamships and railways, all had a part in the Industrial Revolution. Wood had up to that time been the major fuel, but by the end of the century only four of the original 69 great forests of England remained and there was great need of a newer and cheaper fuel. Coal was the answer and new mining methods could be developed which in turn led to better production of steel. Iron smelting was changed by Abraham Darby, who mixed sulfur with Shropshire valley coal, making coke and it was this that let England become the world's leading iron manufacturer after 1760. (Ref. 90) These changes had not come overnight. For example, a blast furnace built in Dolgyn in Wales in 1717 was not fired until 5 years later when enough charcoal had been accumulated for 361/2 weeks work. Newcomen invented the atmospheric steam engine in 1711, but only one was in operation in England 30 years later. Thousands of factors hindered progress. What would happen to the labor force when machines took over? (Ref. 91) In 1728 the first steel rolling mill was set up and in 1740

Benjamin Huntsman invented the crucible process for making high-grade steel. This union of coal and iron made the great machines of the Industrial Revolution possible. (Ref. 92) Similarly in textile production, there was John Kay's "flying shuttle" (1733) and Lewis Paul's spinning machine (1738) which in this era revolutionized that field. The Industrial Revolution began in England and occurred only in England in this century. In the reign of George III the structure of British economy and society in general underwent profound change, manifested first by the tremendous output of coal, pig-iron, engineering products and textiles, as already noted. But the economic growth was furthered by the fortunate availability of cheap water transport in inland waterways¹¹ for the newly manufactured heavy, bulky goods and a shipping fleet of 658,000 tons, which was to triple within the next 50 years. (Ref. 93) McNeill (Ref. 94) reminds us of a fact of ten overlooked in that the iron and steel production in Great Britain was basically stimulated by the governments' need for naval cannon and other military hardware. In the decade after 1794 the British government purchased about 1/5 of the ironmasters' products¹². In essentially the same period, the Royal Navy made two important technical advancements - copper sheathing for ships' bottoms and the use of short-barreled, large caliber guns called "carronades", which were extremely effective at short ranges. Another plus for England was that except for two minor revolts (Jacobite), she fought her 18th century wars abroad and left the homeland free for industrial development. Her foreign trade trebled between 1702 and 1772. (Ref. 95)

Perhaps the most fundamental difference between social patterns of Britain and the continent was the greater prestige and autonomy which merchants and financiers enjoyed in the former. The interpenetration of the landed nobility and the merchant class in England resulted in availability of large amounts of capital and a remarkable economic growth. Toleration of religious nonconformity also helped. The liberties of Englishmen, expressed in chronic effervescence of parliamentary (and extraneous) debate, confirmed by economic and imperial success, contrasted the deferential obedience demanded by European monarchs. (Ref. 98)

One must not assume, however, that there were no troubles. England created two societies, remote from each other. The first was the society made up of modest country gentlemen and the other was the urban conglomerate, with plenty of animal spirits and

not much civilization. (Ref. 99) With somewhere between 750,000 and 860,000 inhabitants London was the largest city in Europe¹³ but a considerable part of the population was packed into slums filthy with garbage and offal, breeding a hundred diseases. In some sections nearly 50% lived by charity, theft or prostitution. 64% of the children died before reaching 10 years of age. There was not a single bathing establishment in London, even in 1800. Education was very spotty and the great majority of Englishmen could not read or write. Drinking and gambling were rampant with the typical London man consuming a quart of beer or ale a day. 5 1/2 million gallons of gin were consumed in Britain in 1735. Soldiers were all given alcohol before battle and became habitual drinkers. An English military doctor of 1763 even felt that wine and alcohol helped to suppress certain diseases and were indispensable for the good health of the troops. In spite of that, improved farming machinery and methods such as fallowing led to improved diets and then to a population increase. (Ref. 100) In the 1770s some 8,000,000 pounds¹⁴ of tea were consumed in England and by the end of the century the English were consuming 2 pounds per person, per annum. Catsup (or ketchup) came to England via India from Chinese immigrants to Southeast Asia. The word comes from the Siamese *Kachiap*. (Ref. 101)

On the government level piracy was still tolerated and the slave trade by English ships still flourished. And even as now, the lawmakers of England had been so eager to protect the individual from the state that many worried that they were failing to protect society from the individual. The machinery of enforcement broke down before the spread and organization of crime. As in France, a stock exchange in London was established at the turn of the century and again, as in France, there was a market crash in 1720, as the South Sea Company went into bankruptcy.

In some degree history does repeat itself. Just as today labor fears the increase in automation, so in the 18th century the development of machines led to serious labor reactions. We have mentioned John Kay's invention of the "flying shuttle" which doubled the weaving output and increased quality, but now we must add that angry mobs broke up his house and he died in poverty, in France. Similarly, James Hargreaves of the spinning jenny fame, had his house sacked, his first machine burned and he also had to flee. (Ref. 104) Still another phenomenon appeared that

remains with us today - bitter arguments over the mounting national debt. The entire economic system depended on the "credit-worthiness" of the state and it could continue to exist only if Parliament created new sources of revenue earmarked for regular payment of the interest on the debt. As a result certain people, land-owners particularly, had high taxes levied, while others, money lenders, renters, and business men, whose incomes were not taxed, gained whenever the state borrowed more money and the interest rate was raised. Braudel (Ref. 105) says that this latter group actually promoted the 1739 war with Spain.

As to philosophy and religion, Britain preceded continental Europe both in the collapse of the old feudal system and the near collapse of the Christian religion. The Established Church was rent by all varieties of dissenting sects and perhaps hit hardest of all by the campaign of the Deists to reduce Christianity to a belief in God and immortality only.

Thomas Woolston, Matthew Tindal, Conyers Middleton and others wrote, spoke and ridiculed. The upper classes were predominately counter-religious and the lower classes in great part had no religion at all, even though there were state penalties for being absent from church, a statute seldom enforced. Not more than 5 or 6 members of the House of Commons went to church. The Anglican clergy seldom mentioned heaven or hell and stressed social virtues rather than other-worldliness. In this setting flowered Methodism, founded by John and Charles Wesley, with a few friends, especially George Whitefield, as they organized a little group of 15 students and teachers at Oxford, resolved to practice Christianity with "Methodical" thoroughness. All were devout Anglicans and most became Anglican clergy. On a trip to Georgia as a missionary, John was impressed by the piety and creed of some Moravian Brothers and soon adopted some of their intensity and ideas. In the next few years, Whitefield's and John Wesley's emotional oratory and preaching and Charles' hymns took over lower class England for Methodism. They preached essentially the old Puritan Creed with the message of sin and repentance, a faith based on fear, not love, but they gave an ethical code that shared in the moral rehabilitation of England in the 2nd half of the century. By the time of John Wesley's death there were 79,000 followers in England and 40,000 in the United States. By 1957 there were 40,000,000 Methodists all over the world. Methodism placed all

hopes on faith in the great conflict between reason and faith. (Ref. [106](#)) By the end of the 18th century there were 20,000 Jews in London, hated and given little or no opportunities. (Ref. [107](#))

Literature and music continued to flourish. In addition to the early century writers mentioned at the beginning of this section, there were Henry Fielding, who wrote the well known Tom Jones in 1730, Thomas Gray, known particularly for his "Elegy in a Country Courtyard", the caustic Samuel Johnson, and the transplanted Scottish philosopher and historian, David Hume. We should not omit mention of Handel's music¹⁵.

The first medical school in London was founded by William Hunter, interested primarily in dentistry and obstetrics. His delivery of various members of the royal family helped to raise obstetrics from its medieval obscurity. William's brother, John Hunter, was even more famous as a surgeon and was a student of two other famous surgeons, William Cheselden and Percival Pott. John Hunter developed a method of closing off an aneurysm, thus preventing the necessity for amputation of limbs of thousands of soldiers and civilians. The surgeons finally achieved equality with their traditional rivals, the physicians. Most prominent among the latter was William Heberden, who described angina pectoris and nodules of osteoarthritis of the fingers, which still bear his name. The most important drug development was digitalis, used for "dropsy" by William Withering in 1785. James Lind, a British naval surgeon, proved the efficacy of fresh lemons and oranges in curing scurvy in 1753, but the Admiralty did not act until 1795 and even then used cheap, West Indies' limes (rather than the Mediterranean variety), and these lacked the necessary Vitamin C. Thus, scurvy outbreaks continued on British ships for another 100 years, although the mortality rate did decrease. (Ref. [108](#), [109](#))

In spite of the medical advances small-pox remained widespread and highly virulent, with mortality ranging from 15 to 30%. Throughout this century there were only 9 years in which small-pox deaths in London did not exceed 1,000 and in 1759 they reached 3,296. One-third of the inhabitants of England bore pit marks of that disease. The idea of inoculation by pus from a true small-pox lesion was brought from Turkey by Lady Mary Wortley Montagu and was used for a short time, but was then dropped as too dangerous. It was at the end of the century in 1798 that Edward Jenner published his famous paper on the use of cow-pox for

vaccination. Typhus fever occurred sporadically in mild epidemics. Scarlet fever increased in incidence and by 1750 one out of every 30 cases died. A severe epidemic of that occurred in 1777-1778. In spite of all this, life expectancy of 35 years in England was much better than the overall world expectancy of 25 to 30 years. (Ref. [110](#), [111](#), [112](#), [113](#))

The War of American Independence was precipitated by the poor policies of ministers such as Grenville and Charles Townshend, but George III's responsibility for the final breach is not to be denied. (Ref. [114](#)) Simple in tastes and unpretentious in manner, his mind was still Hanoverian, with an inveterate obstinacy and stubbornness. He could not understand those who feared the consequences of a policy of coercion. Edmund Burke, Secretary to the Marquis of Rockingham, brought the Whig party to stand for conciliation of the colonies as well as relaxation of restraints on the trade of his native Ireland, but the king was not convinced and after 13 months he got rid of Rockingham's government. William Pitt, now ill, went along with the king and Townshend returned to power, with the final result being war. As it progressed the British General Burgoyne's defeat in October of 1777 at Saratoga influenced France, supposedly neutral up until that time, to ally itself with the colonists. The French brought their intact navy up to the line and started a war of revenge against Britain to overcome the sting of the recent Seven Years War. (Ref. [115](#)) The revolt of the colonies had shattered England's complacency and the word "reform" was in the air. William Pitt the Younger came to power at age 24 in 1783 and in the next 10 years he tried mightily to stay clear of Europe's upheavals, while he improved the financial, administrative and supply organization of the Royal Navy.

Scotland

The death of the widowed King William left the crowns of both England and Scotland to his sister-in-law Anne. Under some duress by restrictive trade decrees against Scotland, in 1707 a treaty was concluded producing a formal union of the two countries, with a common parliament. But the English continued to harass the Scots.

A Scots proposal to build roads into the Highlands to exploit their great timber resources was rejected by the English, as they continued to import wood from America. English coal could be

exported duty free to Ireland, but not to Scotland. Poverty remained endemic but cultivation of the potato on the Stirling plain after 1739 and an increase in the breeding of black cattle began to offer hope for recovery. In the Highlands a warrior society still existed, tribal at the bottom, almost feudal at the top, all using their ancient Gaelic language and existing on the black cattle economy.

The Act of Union joining the two countries did not prevent an occasional resurgence of Scottish national pride and attempts at forcing a new Stuart king on to the throne of Britain. Bonnie Prince Charlie, Catholic son of James III, spent his life trying, with interval help from France and various Scot clans, and he even invaded England with an army of about 10,000 in 1745 - the Jacobite Rebellion. It all came to naught and after the Highlanders' defeat at Culloden, Gaelic Scotland was broken, as the clans were dissolved, the bagpipe banned in war and the kilt outlawed. At the end of that final battle, the English killed all the wounded on the field, shot and hung fugitives and burned houses. Many Celtic Scots emigrated to Nova Scotia (New Scotland). (Ref. [116](#)) In spite of that bloodbath, it is amazing that trade, industry and arts made a rapid and substantial recovery. At the end of the century the economy was helped as iron foundries started up, with contracts from the British navy. (Ref. [117](#))

Every parish in Scotland tried to set up a school for its children and 4 universities offered the best education in the British Isles. Another student of Boerhaave of Leiden (see page 969), Alexander Monro, returned to his native Scotland to give new life to the ancient University of Edinburgh, which became the center of medical instruction for the English speaking world. (Ref. [118](#)) This century has been called the era of "Scottish Enlightenment", with the philosophers David Hume and Thomas Reid, historian William Robertson, political economist Adam Smith, novelist Sir Walter Scott, who was born and educated in Edinburgh, and finally Robert Burns (1759-1796), who wrote some in English, but whose poems in Scottish have brought him everlasting fame. (Ref. [119](#))

IRELAND

Ireland had a far different situation from Scotland. As a result of repeated victories by English armies over native revolts, a code of laws had been set up that chained the Irish in body and soul. (Ref.

120) The landowners were almost all Protestants, most of them actually living in England and those who resided locally isolated themselves from the hostility of their surroundings with drink, quarreling, dueling and gambling. The Established (Anglican) Church in Ireland included only about 1/7 of the people, but was supported by tithes from the peasantry, almost all Catholics. The latter were excluded from public office, from all professions except medicine, could purchase no land or hold any valuable lease. Emigration continued with about 8,000 Irish going to America each year in the 8th decade. (Ref. **121**)

At the end of the century in 1798 a revolt broke out again in the country, which was put down by Lord Cornwallis, in spite of French assistance to the Irish. (Ref. **122**) The

British leaders then decided to make Ireland- a part of the United Kingdom. An Act of Union was passed in 1800, which made all of the British Isles a single entity of Great Britain. The social pattern in Ireland resembled that of eastern Europe and the southern American colonies, in having a privileged body of landowners, who shared European civilization and a culturally deprived, psychologically alienated mass of agricultural laborers. (Ref. **123**) One helpful feature at the century end was a rise in grain prices in England, which made the Irish potato culture more profitable and necessary. (Ref. **124**)

SCANDINAVIA

Coming from England, the potato reached Scandinavia in this century. (Ref. **125**)

NORWAY

Still under Danish rule, Norway was rapidly developing a sea trade and shipping industry, with particularly close commercial ties with England. Norway's chief contribution to the literature of the period was Ludvig Holberg, who wrote a number of comedies to be played in the first theater in Denmark.

SWEDEN

Since Sweden was occupied almost entirely in the early century with war, we shall first continue our special section on that war.

After termination of the Great Northern War, political power in

Sweden shifted to the lower nobility and the rich merchants, who were prospering in trade and industry, exploiting the mineral resources of the country. The parliament became the center of political life, but it soon took on dishonest ways and fell in prestige so that Gustavus III became an absolute ruler once more in a golden interlude of intellectualism and art (1771-1792). In the meantime the Hats, a political party under French influence, had provoked another war against Russia, but after two years Sweden was again the loser and had lost still more territory in Finland.

Great men of Sweden in this century were Karl von Linn (Linnaeus), who established the modern binomial system of naming plants and animals and Anders Celsius, astronomer at the University of Uppsala. He also devised the centigrade scale thermometer.

DENMARK

Some repetition of the material concerning the Great Northern War will be apparent, in this section. In 1699 Frederick IV, aged 28 years, had ascended to the throne of Denmark and with Peter the Great of Russia, aged 27 years and Augustus of Poland, 29, formed an alliance to obtain revenge for the actions of Sweden's 17 year old king, Karl XII. On the alliance's declaration of war, however, Karl immediately attacked Denmark, starting the Great Northern War. Sweden easily won those initial battles and continued conquering throughout eastern Europe for the next 10 years, as we have noted above.

After Karl was defeated at Poltava, however, Frederick once more led Denmark and Norway into war on land and sea and the final peace did not come until 1721. The European powers at the peace table would not return both sides of the Sound to Denmark, because of the old grievance of the Sound Dues and they let Sweden keep Scania.

Frederick IV encouraged intellectual life, subsidizing the Norwegian poet and playwright, Ludvig Holberg. With budding intellectual life, industry also developed, including the still famous Royal Copenhagen Porcelain factory. After Frederick's death in 1728, a great fire swept Copenhagen in the reign of Christian VI. The latter was followed by Frederick V, who married the daughter of Britain's George II. Upon Frederick V's death in 1765 his mentally ill son became Christian VII, married to Caroline Matilda, sister of George III of England. Christian's physician, Struensee, became an

all-powerful minister for a short period, but Andreas Peter Bernstorff replaced him as chief minister in 1773. After 1784 Christian's son and successor Frederick VI acted as regent and put through wide reforms, including the liberation of peasants from serfdom, clearing the way for the breaking up of large land-holdings and allowing improvements in farming methods. In 1792 Denmark became the first European country to prohibit the slave trade. Of interest is the fact that it was a Dane, Vitus Bering, who explored the northern seas and oceans for the Russian navy in the first half of the century. (Ref. [126](#), [127](#))

FINLAND

Sweden continued to rule Finland, but in 1713-1714, as a part of the Great Northern War, Russians conquered the entire south coast of Finland, using newly made galleys some 80 to 100 feet long with a single mast and sail and numerous benches for oarsmen. They moved in and out along the shore, out of reach of the Swedish men-of-war. Occasionally, when necessary, the galleys would grapple and use hand to hand battle on the decks of the great ships of the line. During this short period much of the Finnish population fled to the Aland Islands, lying between Finland and Sweden. Those islands, however, were soon also infiltrated by the Russian galleys. In the end, as noted above, Finland proper was returned to the control of Sweden. The Finns themselves were basically poor peasant farmers. Their houses and other farm buildings were wooden huts with little in the way of accessories. At the end of the century Russia's continued push against its frontiers resulted in a recurrent invasion into Finland (1790) at the expense of the Swedes. (Ref. [128](#), [129](#))

OVERSEAS SCANDINAVIAN CENTERS

In Norway's "colony" of Iceland, there was a severe cold period, with glaciers covering more of the land so that depopulation occurred. It was mentioned in the introductory material in Chapter 3 (FIFTH AND FOURTH MILLENIA B.C.) that Iceland sat on the mid-Atlantic ridge, which marks the junction of two crustal tectonic plates. Beginning in 1724 volcanic fissures opened and spewed the spectacular "Myvatn Fires" over a period of 5 years, pouring lava and destruction over a large area. (Ref. [130](#))

EASTERN EUROPE

The 18th century European surge in population did not put as much strain on the food supply system in eastern Europe as it did in the west, where easily used land had already been under cultivation for some time. In the east there was still much untilled expanse which could be converted to crops without costly capital improvements. As men became more abundant it was also easier for Poland and Russia¹⁶ to recruit more soldiers. Russia, as a state on the margin of Europe, like Great Britain, was able to increase control of resources more rapidly than was possible in the more crowded center of Europe. (Ref. 131)

SOUTHERN BALTIC AREA

It will be recalled that the close of the last century saw almost the entire southern shore of the Baltic in Swedish hands, with a debilitated Swedish army in Livonia, after defeating the Russians at Narva and Poland as an independent kingdom, ruled by the Saxon Elector, Augustus. Having put what remained of his army in Livonia in winter quarters, Karl XII of Sweden obtained 10,000 fresh recruits from the mother country in the spring of 1701 and then marched with a total of 24,000 men south across the West Divina River, near Riga, to defeat a Saxon army of 9,000 plus an additional cadre of 4,000 Russians. Because Karl could not move his cavalry across the river, which was some 650 yards wide, the Saxons, although badly beaten and battered, retreated and got away. Karl then decided on total defeat of Augustus, before invading Russia. Up to that time Augustus had fought only as a Saxon and not as King- of Poland. Karl wanted the Polish Diet to depose Augustus II and elect a new king, so he waited patiently for that action. But it did not come and by that time it was too late in the year for war in that cold climate, so he wintered his troops in Courland. In January the Swedish army shifted south into Lithuania and in the spring of 1702 started the fight against Poland and Augustus II, which was to last for 6 years. Behind the Swedes, Russian soldiers with Calmuck and Cossack horsemen eventually completely overran and devastated Livonia and the peasants were being bought and sold as serfs. Among the prisoners taken was Martha Skavronskaya, a 17 year old, illiterate girl who would join the house of Prince Menshikov, become Peter I's mistress, then wife and finally the ruler

of Russia as Catherine I.

By the end of 1704, after taking the Swedish held fort at the junction of Lake Lagoda with the Neva, the Russians had taken both Narva in Estonia and Dorpat in Livonia, giving Russia an entrance to the Baltic. (Ref. 132) Meanwhile Karl XII had finally convinced the Polish to dethrone the Saxon, Augustus, and under Swedish guns Stanislaus Leszczynski was crowned King of Poland at Warsaw (not at Cracow, as traditionally). The Swedish army then turned toward Russia (1705) while Augustus, disguised, went by a circuitous route through Hungary to join Czar Peter and the Russian forces. In the first battle at Grodno Karl forced the Russians to retreat in disarray, but he could not follow because of a spring thaw and its mud. The eventual defeat of the Swedish forces at Poltava, however, has been described above in the special section on THE GREAT NORTHERN WAR.

We have also previously reported that Karl XII obtained a new army of 18,000 men in 1712, landing in Swedish Pomerania with the intent to again attack Russia. A Danish fleet caught a convoy of supply ships, sending 30 of them to the bottom of the Baltic.

The Swedish General Stenbock wheeled and attacked the Danes on the west, winning the battle but losing 6,000 fighting men. He then marched on west toward Hamburg. At Altona he demanded 100,000 thalers for expenses and when the town could raise only 42,000, his men burned the community to the ground.

At what might be called the half-way point of the Great Northern War, after the Swedish defeat at Poltava in Russia, Poland became in effect a possession of Russia and Augustus II was put back on the throne. Peter I also arranged a marriage between Duke Frederick William, of Courland (a nephew of Frederick of Prussia) to his niece Anna (daughter of his half-brother Ivan). She soon became Duchess of Courland, as her young husband died. We shall note later that she was also called back to Russia in 1730 to be Empress Anna Ivanovna. Also, in this interim, Peter's son Alexis married the daughter of the Duke of Wolfenbuettel at the castle of the Queen of Poland in 1711. (Ref. 133)

In about 1733 Russian and Saxon troops put young Augustus III on the Polish throne. He had Austrian backing, but France, Spain and Sardinia took up arms in the so-called War of the Polish Succession, in favor of the deposed Stanislas Leszczynski. By 1738 Stanislas announced a renunciation of the throne and Poland had

reached a point of real political decay. (Ref. [134](#)) Rich nobles still wielded much power, however, and Prince Radziwill single-handedly raised his own army, equipped with artillery, in 1750. (Ref. [135](#)) The body politic pulled itself together enough by 1764 upon the death of Augustus III, to elect Stanislas II Poniatowski as king, but Catherine II of Russia used religious divisions as a lever to foment more civil strife. In the resulting war of 1768-1774, the Turks decided to help Poland, but Russia still dominated and sliced off a portion of Poland (part of the first Polish partition) and destroyed the Turkish Mediterranean fleet at Chesme. In the midst of this was a Jewish persecution with thousands having to flee, some to England. (Ref. [136](#)) To complete that first partition Prussia took an area of Poland between Danzig and Thorn, while Austria helped herself to a large area just south of Cracow. A second partition of Poland took place in 1787-92 and finally in 1795 all of Poland was gobbled up, with Austria taking Cracow, Prussia getting Warsaw and Russia occupying Vilna. On that occasion Catherine II of Russia was invited in by the greater nobles of Poland. Life in that country was bad and superstition great. The starving citizens of Kolberg would not touch a wagon load of potatoes sent to them by Frederick the Great in 1774. (Ref. [137](#)) The peasants were subjected to the worst kind of serfdom. In Lower Silesia in 1798 compulsory labor by peasants was unlimited - that is, they could be forced to work 7 days a week for an unlimited number of hours. Later in the century there was a tremendous "floating" population of runaway serfs, impoverished noblemen, indigent Jews and urban paupers, forming a sort of "anti-society". (Ref. [138](#))

The unfortunate history of Poland through the ages seems due to multiple factors, not the least of which was the constant antagonism between the nobility and the crown, often subjected to various foreign pressures. The Polish territory overlapped an area containing Russians in the east and an area containing Germans in the west. The country was still abundant in Jews but the majority of the people were Catholic. There were no great cities and little trade and actually very little central authority. An arm of Poland reached out to the sea at Danzig and this separated Prussia into two halves, annoying Frederick II. Internal weakness was caused by obsolete institutions and religious antagonism brought about by central intolerance to both Protestantism on the western borders and orthodoxy in the great Ukraine.

Map from Reference 97

The other Baltic states suffered about the same ultimate fate as Poland. Latvia and Lithuania were divided along with Poland in the various partitions between 1772 and 1795. Estonia, devastated by Peter's armies was then ruled by Russia for the next 200 years, although the culture of the country remained Germanic. (Ref. [139](#), [140](#))

RUSSIA (Please see map in RUSSIA section, next chapter)

After his defeat by Swedish forces at Narva, Peter I immediately started to rebuild his army and equipment. When he had been in England, he had bought about 40,000 modern flintlocks with bayonets and he used those remaining after the Narva battle as models, constructing 6,000 in 1701 and turning out 40,000 a year by 1711. One-fourth of all the church bells in Russia were melted down to make new cannons, with 20 new ones available by May, 1701. In the next three years seven new iron works were developed beyond the Urals, using good ore, perhaps even better than Sweden's¹⁷. Peter received no help from Holland or the Habsburgs in this period, because they were involved with most of the rest of Europe in the War of the Spanish Succession. He did get some reassurance from his old ally, Augustus II of Poland. However, when the allies defeated Sweden, Russia got only Ingria and had to supply 15,000 to 20,000 infantrymen for the Saxons, besides paying Augustus a war subsidy of 100,000 rubles a year for 3 years.

During the 6 years that Karl XII of Sweden was fighting in Poland, Peter had some small military successes, including the standing off of a Swedish naval expedition at Archangel and some victories against the 7,800 Swedes left to hold Livonia, taking some Swedish prisoners back to Moscow and eventually completely destroying the rest of that Swedish army, using savage Kalmuch and Cossack horsemen. In 1702, with a fleet of small gun-boats built on the south shore of Lake Lagoda, the czar attacked a Swedish squadron of three brigantines and three galleys, forcing the Swedes to withdraw down the Neva River, leaving the great lake to the Russians. After similar attacks the Swedes also had to withdraw from Lake Peipus, only to return in 1703 and again be run out by the Russians.

Peter had gained his opening to the Baltic by taking Fort Noeteborg (renamed Schluesselburg) and he soon controlled the

ancient area of Ingria, along with the area where he was soon to build a city, St. Petersburg, at the mouth of the Neva. That city is at the same latitude as Hudson's Bay and when built, New York was already 77 years old and Boston 73. The first digging for the new city was in May, 1702 on Hare Island. Although still occasionally under attack by Swedes, the new city received its first merchant ships for trade in 1703. The hardships of building a fortress and a city on the swamps were stupendous, requiring thousands of laborers, who were drafted from all parts of the empire

Cossacks, Siberians, Tatars, Finns and Russians. Scurvy, dysentery, malaria, etc. cut them down by the hundreds, perhaps overall some 30,000 dying. All the stone and most of the timber and all food was imported from inland. People, from nobles and merchants down to peasants, were forced there to live. Fires were common and the czar himself often led the firefighters. Floods were also frequent and devastating, with the entire town sometimes under water. In the area around St. Petersburg, most of the original Finns had been eliminated by war and plague¹⁸ and Peter gave their land to noblemen and officers who often then brought whole villages of peasants to live there.

The czar had to control Livonia and Estonia to safeguard his new city and to accomplish this while still administering the entire country meant that he had to travel constantly.

Except in winter, travel was extremely difficult and hazardous, with rutted or muddy roads, worn out bridges, crude ferries and fords and few fresh horses. His whole concern was war and taxes to support war. The money came from an increasing number of state monopolies, with the state taking control of production and sale of innumerable commodities from alcohol to chessmen, salt and furs¹⁹. Many people revolted, some escaping to the north and east to join the "old Believers", others even organized true revolts, including a rebellion at Astrakhan and the uprising of the Bashkir (semi-orientals between the Volga and the Urals), as well as the Don Cossack revolt under Kondraty Bulavin. All were put down in one way or another, the latter one with the help of other loyal Cossacks under Hetman Maximov. For that, Maximov was later executed by Bulavin.

In the interval after Peter defeated the Swedish king at Narva and after the cessation of the War of the Spanish Succession, Peter tried to make deals with any and every European power for help against

further Swedish advances, but he had no luck. And then Karl XII struck again with 26,000 of his own men and almost 42,000 men from Saxony, leaving the latter country in August of 1707, going through Protestant Silesia. Ahead of that army, however, in western Poland, Cossacks and Kalmuks had ridden, laying waste the countryside and poisoning the wells with dead, uncooperative Poles. All Russian soldiers were withdrawn from western Poland to a line near Minsk. Then, while waiting for Karl's forces, Peter married his Lithuanian, low-born mistress of many years, Martha Skavronskaya, who had taken the name Ekaterina (Catherine). Karl came relentlessly on through the winter over the frozen Vistula and soon captured Grodno, leaving Poland and entering Lithuania. Then the tides of war wavered toward one side and then the other, but gradually the battle lines shifted more southward towards the Ukraine and away from Moscow.

This brought up again the thorny question of the shifting allegiances of the various Cossack and Ukrainian peoples. The Hetman of one large group of Cossacks was Ivan Stepanovich Mazeppa, born in the then Polish sector of the Ukraine, well educated in Jesuit academies but orthodox in religion and at one time a page at the court of King Jan Casimir of Poland. Mazeppa had mixed loyalties, part to the new czar and part to his people, who had wanted full Ukrainian independence in order to avoid Russian taxes, conscription and requisitions. Finally the Hetman did betray Peter and went over to the side of the invading Swedes, whom he thought would win. But while Mazeppa was gone, Peter's forces slipped into the former's home city of Baturin and completely destroyed it, slaughtering 7,000 inhabitants, soldiers and civilians alike. Most of the Ukrainians then stood by the czar and the worst winter of history, which followed, dealt a devastating blow to the invading Swedes, with sentries freezing to death at their posts and overall, some 3,000 Swedes freezing to death, with many more seriously incapacitated by frost-bite. Still Karl XII would not give up, hoping to receive reinforcements and supplies from Poland and the Turks and/or the Crimean Tatars. None of this materialized although he did gain support through the dealings of Mazeppa, of the wild Zaporozhsky Cossacks, who lived on 13 fortified islands below the rapids of the vast Dnieper River, under their Hetman Gordeenko. These Cossacks had sufficient boats to transport 3,000 men across the great river in a single trip, but once again Peter got

there first and destroyed all the boats and razed their island base.

As noted in previous sections, the decisive battle of the Great Northern War was fought in the summer of 1709 at Poltava in the Ukraine, in which an original army of 19,000 Swedes left 6,900 dead and wounded and had 2,760 taken prisoner, including some 560 officers in both groups. Russian losses were light. In that single battle, the Swedish invasion of Russia was terminated and the political axis of Europe was shifted, with a new balance of power, which carried over for the next three centuries. The last of the Swedish army was caught and surrendered some days later as it attempted a southern escape and Czar Peter then had 17,000 Scandinavian prisoners. They were treated well, with the officers given the same rank in the Russian army, where some served Russia on other fronts. Of the regular soldier prisoners, in time some 1,000 became painters, goldsmiths, tailors, shoemakers, woodsmen and teachers. When the final peace came in 1721, only 5,000 Swedes could be found who wanted to return to Sweden. In the meantime, King Karl XII escaped to Turkey.

St Petersburg continued to flourish, with Italian, French and German architects all leaving their marks, but it never escaped entirely from the sea, from which it was snatched, suffering complete flooding in 1715 and again in 1775. The common people in and about St. Petersburg were chiefly Finnish and while the women were chambermaids or cooks, the men were sledge drivers or snow and ice shovelers and ice-breakers on the Neva. Ice blocks supplied ice-houses on the ground floor of every large home. Even the lowest servant spoke Russian, German and Finnish, while the educated often spoke 8 or 9 languages. There were endless supply problems. While fish could be obtained from lakes Ladoga and Onega, sheep and cattle had to be brought from the Ukraine, the Don and the Volga regions or even from Turkey. (Ref. [142](#))

Peter, like other sovereigns of his day, had his many eccentricities, including the collection of giants and dwarfs. The Russian people of that time were crude, with continual drinking and fighting being their greatest entertainments, all under most unsanitary conditions. When they did bathe, they then ran out into the snow, like many Finns do yet today. Under Peter, Russia's past traditions disappeared; there were no more beards, caftans or female seclusions at the court; the Julian calendar was adopted and the alphabet simplified. Like Ivan the Terrible before him and Stalin

afterwards, Peter's individual will effectually transformed Russian society and institutions within one quarter of a century. He transposed the serf system to new industries, with everyone working directly or indirectly for the state. (Ref. [143](#)) Besides the westernization and naval development, men were elevated by merit and although old noble titles were not abolished, they no longer carried special privileges. He promoted mining and industry and an Academy of Science. One of his greatest accomplishments was a continuous waterway from the Caspian Sea via the Volga, Volga tributary, a small canal at Vyshny-Volochok²⁰ to Lake Ladoga, the Neva River and then the Baltic. But Lake Ladoga weather and waves were of ten too much for flat-bottomed river barges, so later Peter started another canal at the south end in the marches of Ladoga, which was to be 70' wide, 16' deep and 66 miles long. It was not completed in Peter's life time.

Even after the Great Northern War was settled Peter's drive for conquest was not stilled and he started for the Caspian Sea, Persia and India as well as north and east to the Pacific. In 1724 the Danish born sea captain Vitus Bering, in Russian employ, led an expedition to what was subsequently called the Bering Strait, then 53 miles wide and only 144' deep. East of the Caspian, Peter did not have much luck, as he was soon met by the army of the Khan of Khiva. The Russians won the initial engagement and were invited into the city where they were divided up for billeting and then were systematically slaughtered, group by group. West of the Caspian in the area of Christian Georgia, Peter had better fortune, eventually winning the city of Derbent from then decadent Persia, along with three seaboard provinces of the eastern Caucasus Persia continued to fight, however, and later in 1732 Empress Anna, losing 15,000 Russian soldiers a year to disease, gave those Caucasian provinces back to Persia, where they remained until the time of Czar Alexander I, in the next century. (Ref. [145](#), [146](#), [147](#))

On the bad side of Peter's ledger was the creation of a bureau of official informers called "fiscals" and as today, when Russians sold goods to foreigners, they could receive only foreign money. He also started an internal passport system, still in use today, which binds a Russian to a farm or a factory. Of Peter's 12 children by Catherine, only Anna and Elizabeth lived beyond the age of seven. Catherine was made officially Empress of all Russia in 1722 and when Peter died in January, 1725 she continued to rule. Peter's death had to do

with a chronic urinary tract problem (he had passed numerous stones) and apparently he developed an obstruction in his bladder from stone or cancer of the prostate, along with infection. At autopsy he had gangrene of the bladder and adjacent tissues. There was no evidence of syphilis, as has been intimated by a few authors in the past. (Ref. 148) The real ruler during Catherine I's short reign was Peter's old, close friend Menshikov, also of very humble origins. Catherine died in 1727, succeeded by Peter II (Peter's son by Eudoxia, his first wife) and Menshikov was exiled. But Peter II died of small-pox in 1730 and Anna, daughter of Ivan V, and the widowed Duchess of Courland, became Empress for the next 10 years. On her death the infant Ivan VI, grandson of her elder sister, Catherine of Mecklenburg, inherited the throne, only to be shortly imprisoned for 22 years, while Elizabeth, Peter's daughter, helped by the guards regiment became Empress from 1741 to 1762. Although never married officially she may have secretly married her lover, Alexis Razhumovsky, whom she raised from commoner to count. Following Elizabeth came a short reign of Peter III (another of Peter the Great's grandsons) and then his grandson's German wife, Catherine II the Great²¹. (Ref. 149) This Catherine had assumed power when she schemed with her lover, the guard, the army and the navy to force her weak husband to resign as czar. Shortly thereafter the poor husband was either murdered or just died. (Ref. 150) Superficially she was a sophisticated ruler, carrying on correspondence with Voltaire and other European intellectuals, but at home she let social reforms die and was actually concerned only with increasing her territories. She preserved her power by cultivating the Imperial Guard and satisfying the noble class. The urban population rose to about 2,000,000, while the serfs' lives became more degraded. In 1773 Emelian Pugachev, a Don Cossack, led an uprising of peasants, Cossacks of southeastern Russia and minority groups of Kalmuks and Bushkirsalls along the Ural and Volga rivers. The stage had been set by the long history of serfdom and the attachment of peasants to factories, intolerance and discrimination toward the various tribes in the Volga region, administration corruption, abuse of power by the gentry, crushing tax burdens and intolerable conditions in the army. Religion also became a factor when most of the Cossacks, who were "old Believers", were forced to shave upon conscription. At the time of that rebellion Russia was at war with Turkey and busy with the

partitions of Poland but when that was settled government troops put down the rebellion (1775) and then executed Pugachev. But the primary causes of the movement remained. (Ref. 151, 152)

We have mentioned Catherine's participation in the partitions of Poland in section III, E, I, above. At the end of the century Catherine II had finally defeated the Tatar Khanate of the Crimea, getting control of the north shore of the Black Sea. That portion of the steppe, which included the Ukraine and the grasslands to the east, was far more valuable than the territories which ended up under the control of Austria and Turkey. (Ref. 154) It was Dutch money, loaned to Catherine II by Henry Hope and Company in the amount of 57,000,000 francs that made that conquering expedition to the Black Sea possible. (Ref. 155) Iron and copper ores, along with plenty of charcoal, all from the Urals, allowed great expansion of armament industries and general industrialization. (Ref. 156) In 1771 plague killed 56,672 people in Moscow alone, but an enlarged food supply through the use of the plow overcame those losses so that the population actually increased from about 12,500,000 in 1724 to 21,000,000 by 1796. Catherine introduced smallpox inoculation through an English physician in 1768. (Ref. 157)

A little more about the Russian science at this period is of interest. M.V. Lomonosov was the father of Russian science, doing fine work in molecular physics, chemistry, optics, electricity and in the development of a law of the conservation of matter. He founded the Russian Academy of Science. It was I.I. Shuvalov who founded the University of Moscow in 1755. Leonard Euler, born in Switzerland, did most of his work at the Academy in St. Petersburg. He was the greatest mathematician of the century, developing calculus and some aspects of astronomy. He was the first to develop algorithmic devices and use the concepts of "e", "Pi", and "i" for various constants and an imaginary number, respectively. (Ref. 158)

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1. Up until this date Venice had preserved its own constitution and closed citizenship throughout the centuries. (Ref. 17)
2. One must distinguish between the Fredericks I, II, and III of Germany in the 12th to the 15th centuries and these Fredericks, who were electors and kings of Prussia
3. Frederick Wilhelm I married his Hanoverian first cousin, Sophia Dorothea, daughter of the future king George I of England
4. The Silesian wars between 1740 and 1745 were actually part of what is often called the War of the Austrian Succession, as a coalition of European powers tried to block the accession of Maria Theresa
5. Actually, as Maria Theresa officially came to power at the Treaty of Aix-la-chapelle of 1748, ending the War of the Austrian Succession, Silesia was temporarily given to Prussia. (Ref. 43)
6. The husband of Maria Theresa, duke of Lorraine and grand duke of Tuscany, was

- given the title of Emperor Francis I, although he had very limited authority
7. Negotiated by John Methuen actually to better encircle Spain, which was loyal to the Duke of Anjou, Philip V and the French. (Ref. 58)
 8. Quotation from Braudel (Ref. 70), page 85
 9. The Jacobins were a political club named after their meeting place, a Dominican monastery. Jacobin was the Parisian name for Dominican. (Ref. 78)
 10. Braudel (Ref. 83) says that Amsterdam had only 200,000 at the end of this century. This only demonstrates the uncertainty of population estimates
 11. There were 4,250 miles of inland waterways, all developed privately or by stock companies. (Ref. 96)
 12. 50% of British iron was used for horseshoes. (Ref. 97)
 13. England's total population was at about 8,000,000. (Ref. 102)
 14. One pound of tea makes almost 300 cups. (Ref. 103)
 15. George Frederic Handel was born in Halle, Germany, but moved to England in 1712 at age 27
 16. This was also true of Prussia and Austria
 17. By 1715 these iron works had produced some 13,000 cannons and by 1720 there was an annual output of 20,000 muskets.
 18. Moscow also suffered severely from the plague later in 1770 and 1790. (Ref. 141)
 19. Thus, the later communism was not exactly new to the Russian people
 20. This canal took 20,000 men four years to build. (Ref. 144)
 21. Born Sophia-Augusta of Anhalt Zerbst. (Ref. 153)

Europe: A.D. 1801 to 1900

EUROPE

The population of Europe increased in this century from about 190 million to over 400 million. Industrialization of continental Europe followed England's examples and appeared early in the century basically in the regions of available coal, as in northern France, Belgium and the Ruhr Valley in Germany. Many of the industries and the necessary railway transportation systems were built and operated by governments, because of a lack of private capital. McNeill (Ref. 1) says that the industrialization of war began in the 1840s when railroads and semi-automated mass production together with Prussian breech-loaders and French naval steam efforts began to transform the previous military establishments. Western scientists (including Russians) tried to find the secret of damask steel (see pages 342, 348 and 643) and in so doing really initiated the field of metallography. (Ref. 2) The technology for using this metallurgy and other rapidly developing new fields in armaments actually started in the United States, by 1870. Russia, Spain, Sweden, Denmark and even Turkey and Egypt, were all following the original English example of importing American milling machinery for gun making. (Ref. 3)

The decline in oversea transportation costs made possible by the development of the steamship allowed an era of migration from Europe to the Americas, Oceania, Africa and Siberia. Railroads and steamships alike also extended the area from which bulky crops such as grains and minerals could be marketed and refrigeration allowed food and meat to be brought in from America, China, Australia and India. After 1871, although Europe was heavily armed, there were no wars for the remainder of the century. Ireland, England and all northern Europe, including Russia, had

been badly hurt in mid-century, however, by the potato crop failure caused by the establishment of a Peruvian parasitic fungus, which implanted itself in European potatoes. The resulting famine in Irish, Belgian and German populations, along with typhus fever and other diseases, produced millions of deaths. (Ref. 4, 5)

SOUTHERN EUROPE

EASTERN MEDITERRANEAN ISLANDS

By 1829 the Cyclades had become part of Greece, rather than Turkey. The Greek Cretans revolted against the Turks in the Greek-Turkish War at the end of the century and Crete became independent. (Ref. 6) The authorities then allowed Sir Arthur Evans to start excavations at Knossus. (Ref. 7) The Italian Frederico Halbherr had done some excavation work on the south shore of the island as early as 1884. Britain occupied Cyprus in 1877

GREECE

Led by Alexander Ypsilanti, the Greeks rose against the Muslim overlordship of the Turks in 1821 and in the following year declared their independence. The war was a savage one and also had elements of civil conflict within Greek groups, themselves.

Great Britain, Russia and France finally helped Greece by defeating the Egyptian Muslim, Muhammad Ali, who had taken control of Greece, along with Crete and part of Syria. The victory came in a great naval battle of Navarino, in 1827 and an independent Greek kingdom was established in 1830 under Otto I, who had been a Bavarian prince. A constitution was forced upon the unwilling king in 1844 and by 1862 he was forced to abdicate in favor of Prince George of Denmark. After that Greece gradually gained more territory, acquiring the Ionian islands and Thessaly.

Early in the century Adamantois Korais created a new Greek literary medium, designed to emphasize connection with the classical tongue and to purify the language from heavy infiltration of Italian and Turkish words. (Ref. 8, 9)

UPPER BALKANS

From a material standpoint the Balkans lagged behind most of Europe. Panes of glass were not commonly seen in Serbia until this century and were still a rarity in Belgrade in 1808. (Ref. 10) In

1804 Serbian highlanders, under the rich peasant Kara-george, rose against the local Turks. The fierce fighting continued for several years and was finally put down by Turkish armies. Karageorge fled to Austria, but in 1815 Milos Obrenovic led a new revolt and that one succeeded so that Serbia proclaimed autonomy in 1830. In 1859 the areas of Moldavia and Wallachia became united as Romania, independent of Turkey. A native king was soon disposed and a Hohenzollern became Carol I, recognized in Europe as the sovereign of an independent Romania. Later in the century nationalist ideas spread rapidly throughout the entire Balkan area, but linguistic groups were so mixed up that a division on that basis became impossible. Languages included Romanian, Bulgarian, Turkish, Macedonian, Greek, Albanian, Serbian, Croatian, Slovenian and Hungarian with still some other minor ones, so that many conflicting national claims were made. Russia tried to intervene again in 1877, but the great powers again made her back down. Both Serbia and Romania became truly independent in 1878, although Romania had been united since 1859. Bosnia rebelled between 1875 and 1878, when Austria was permitted to proclaim a "protectorate" over it as Bosnia-Hercegovina. The Bulgarians rose up against Turkish rule in 1876 and after initial defeat were finally helped to independence by Russia in the Russo-Turkish War of 1877-78 and the subsequent Congress of Berlin. The Bulgarian state, however, was reduced to but a shadow of its former self. The remainder of Europe would not accept that situation immediately, so formal independence was not acknowledged until 1908. We have mentioned that Thessaly was added to Greece in 1881.

Greek merchant shippers constituted a limited area of transmission between the Orthodox Balkan Society and western Europe. On the cultural level, Karadjich and Obradovich used the peasant dialect of Herzegovina as the basis for literary Serbian, replacing the old standard, which was based on Church Slavonic. This allowed Serbian and Croatian languages to converge and made modern Yugoslavia a possibility. (Ref. [11](#), [12](#), [13](#))

ITALY

Napoleon transformed Italy into a kingdom, with himself as king, putting one of his family as viceroy of Italy and another as king of Naples. Pope Pius VII was kidnapped and held captive until Napoleon's downfall in 1814. Thereafter Italy became in part under

Austria's control, part under the Bourbon Ferdinand and part under the House of Savoy. Minor revolts, which occurred in Naples and Piedmont in 1821 and in Parma, Modena and Romagna in 1830-31, had no national aims, but later uprisings were more forceful. In July, 1848 Charles Albert of Piedmont was decisively beaten by Austrians at Custoza in Venetia. This led to a closer union of Austria and Prussia, while Italy remained divided. Further war against Austria in 1858 and 1859, with French support, resulted in the union of Sicily, Naples, Umbria, Romagna and Marches with Piedmont-Sardinia under Camillo Benso di Cavour, prime minister of the Kingdom of Sardinia. He was one of the great European statesmen of those times. Victor Emmanuel II was king of Sardinia at the time and it was he, along with Cavour, who secured France's aid in throwing off the yoke of Austria.

Garibaldi had taken over control of Sicily and Naples, with his thousand volunteers, but these areas were annexed to Emmanuel's domain in 1860. In 1861 an Italian parliament met in Turin and declared Victor Emmanuel as King of all Italy. When Austria was defeated by Prussia in 1866, Italy acquired Venetia. Up until about that date Italians, like most Germans, were more attached to their provincial rulers and cultures (Tuscan, Emilian, etc.) than to a national idealism, although the middle class of people had objected to Austrian rule. By the last 2/3 of the century, the Italians extended the Piedmontese (Sardinian) constitution to the whole country and made Italy a centralized entity on the French model. (Ref. [14](#), [15](#), [16](#))

An interesting sidelight is the beginning of the control of malaria in the environs of Rome at the beginning of this century by Pope Pius VII. Ever since the days of the late Roman Empire, when a shortage of manpower and the frequent barbarian invasions led to neglect of the drainage systems of the city and the surrounding areas, which had previously been irrigated, malaria had been a serious, endemic disease of the region. From a population of 750,000 in 70 B.C. Rome fell to 35,000 in A.D. 1050 and malaria has been indicted by some as the chief cause. But the draining of the marshes was started again by Pius VII and completed in the next century by Mussolini, when the population of Rome reached a million. (Ref. [17](#))

CENTRAL EUROPE

Northern Europe had one of the worst summers of all recorded time in 1816. There was frost in July and practically no harvest, so that famine resulted. (Ref. [18](#))

GERMANY

Between 1801 and 1803 Napoleon and his minister, Talleyrand, supervised the reorganization of the old Holy Roman Empire and this was done, not on German soil, but in Paris. The initial steps involved over 1/2 of the more than 300 political entities that had claimed sovereign status since the Treaty of Westphalia. Some 64 ecclesiastical principalities were secularized and 45 of the 51 free-cities were absorbed into larger units. Then the German princes confiscated all religious establishments and the lands of most of the "Knights". By October of 1806 Napoleon had delivered Prussia a telling blow at Jena and the French armies entered Berlin. In the same year Napoleon established the Confederation of the Rhine, with himself as its official protector. All states of the old empire joined this except Austria, Prussia, Brunswick and electoral Hesse. This definitely ended the Holy Roman Empire, forcing the abdication of the title of emperor by Francis II of Austria and then Germany began to draw itself together. At the same time Napoleon was rewarding Wuerttemberg, Saxony and Bavaria for their loyalties by elevating their dukes to kings and giving each a little more territory. Saxony got the Duchy of Warsaw from Prussia; Maximilian became king of Bavaria. But by 1813 Metternick got his Austria to declare war again on France and maneuvered to get Bavaria to desert Napoleon. In a 4 day battle near Leipzig, Napoleon was totally defeated and in the later Peace of Paris and the European Congress at Vienna, which lasted 10 months, Europe was divided among the 4 great powers of Prussia, Austria, Russia and England.

Prussia was re-made into a modern state by a group of enlightened legislators, chiefly Freiherr vom Stein, from a family of Rhineland Knights. The great General Staff was created between 1803 and 1809, utilizing intellectual, vigorous officers. (Ref. [19](#))

The serfs were freed, commerce and industry released from many restrictions and the army made more efficient and humane. On the total scene, however, Frederick William III of Prussia played a

subsidiary role to both Metternich of Austria and Alexander of Russia. A German Confederation was formed of 35 sovereign principalities and 4 free-cities.

Map taken from Reference 97.

Frederick William hated that Confederation but Metternich utilized it to his advantage.

In the 1820s while many parts of Europe reverberated with liberal revolutions, Germany and Austria remained tranquil, although after 1830 some of the more liberal states of south and west Germany experienced mild disturbances. In Prussia, the widespread introduction of steam power in 1812 and an extensive net of railways produced an economic boom and eventually helped in the unification of Germany. Prussia further gained by a high tariff on goods transported across her territory and since she sat astride the most important trade routes between northern and southern Europe, this was a considerable boon. The Zollverein (Customs Union) derived out of that tariff was joined by 7 small neighboring states in 1828 and Prussian imperialism was already underway to some degree. By 1842 almost all German states except Austria, Hanover and a few free-cities had joined the Zollverein. This, along with railroads and the electric telegraph, bound the states together, acting as a unifier. By 1848 there were 3,000 miles of track in Germany. In spite of that, in some areas there were economic failures, unemployment and occasional uprisings.

The plague epidemic of 1846 was another problem and that was followed by world wide trade and financial crises, crop failures and inflation. In 1848 revolutions spread across Europe again, most of them essentially interrelated. In Germany there were three main aims: The unification of the country; the demand for basic civil rights and a measure of popular sovereignty; and freedom for serfs with better hours, wages and benefits for city workers. In the lesser states such as Wuerttembury and Hesse, there did result more liberal cabinets. In Baden there was much blood shed in many massacres.

In Bavaria things were different as King Maximilian I allowed a liberal constitution and promoted arts, science and architecture. When his successor Ludwig I gave his low-born Irish mistress, Lola Montez, a title, he was forced to abdicate and Maximilian II became king with a moderately liberal ministry. Both Ludwig II and son Otto I were brilliant but insane. The former was a friend of the

composer, Wagner. In the meantime, Munich University had been transformed into an artistic and scholarly center.

By this time in Prussia there was revolution. The first disorders arose in the Rhineland, Silesia and East Prussia. Eventually crowds took over Berlin and the king placed himself at the mercy of his people and a meeting of the United Diet was called. Soon, however, royal power was re-assumed, the new liberal cabinet was dismissed and a new government formed under the conservative Count of Brandenburg.

In spite of all, many groups still worked for the unification of Germany. Some 600 delegates from various states met at Frankfurt in 1848, but the delegates got bogged down in too many problems of nationality, cross-purposes, etc. and this, as well as the revolutions, failed at that time. Because of the failure of the 1848 revolutions, Karl Marx was stimulated to write the Communist Manifesto, with the help of Engels. Actually the final unification of Germany involved three wars. The first was Prussia against Denmark. In 1861 King Wilhelm I came to the throne of Prussia and chose Count Otto von Bismarck-Schonhausen as his chief minister. In 1862 Bismarck dismissed the Prussian parliament, allied with Austria and attacked Denmark, taking Schleswig-Holstein in 1864. The "Seven Weeks War" followed in 2 years, with three theaters: (1) Italy, in which the Italians were defeated on both land and sea; (2) Germany, involving defeat of the Hanoverians; and (3) Bohemia, where the Austrians came to the Bohemians' aid. (Ref. [20](#)) In that war Helmut von Moltke showed how the aristocratic General Staff planners could speed up and control deployment of vast numbers of men by carefully calculating everything ahead of time. In addition, the use of breech-loading rifles for the first time (after 26 years of transition) and the probable use of Alfred Krupp's breech-loading steel artillery must have played large roles. The Austrians, however, had 736 new rifled cannon and 58 smooth-bores to the Prussians' 492 rifled and 306 smooth-bores. The Austrians lost the Battle of Koenig-graetz because they had their infantry charge the foe in dense columnar formations. (Ref. [21](#)) At the end of that conflict Prussia annexed Hanover and other German states, abolishing the Bund and forming a new North German Confederation. Bohemia, Austria, Bavaria, Wuerttemberg, Hohenzollern Baden, Palatinate and Alsace-Lorraine were not included in that confederation. Bismarck and Moltke shared the glory of that political

reorganization of Germany with King Wilhelm. (Ref. [22](#))

The third war was the Franco-German War of 1870-71 which was easily won by Bismarck¹ and resulted in the withdrawal of French forces from Italy and the acquisition of Alsace-Lorraine. Prussian planning defeated French elan as the French speed of supply and deployment fell far behind. A new German Empire grew out of that victory, along with a newly awakened German nationalism. All of the principalities mentioned above, except Bohemia and Austria, now joined this new empire, which was headed by the king of Prussia, who took the title of Deutscher Kaiser (Caesar). Perhaps unfortunately for the future of Germany, this empire contained a number of non-Germans, some Danes, many Poles and, of course, many Frenchmen in Alsace and Lorraine.

Otto von Bismarck-Schonhausen was a remarkable man, fluent in both English and French as well as German. As chancellor he placated England and Russia, obtained colonies in Africa and the Pacific and made many social reforms within Germany, itself. He promoted a good deal of social legislation which included: a health insurance law which gave financial and medical aid to workers off work with illness; an accident insurance law for workers' disability compensation; and an old age and invalidism insurance for all those disabled and/or over 70 years of age. The reader will have no trouble recognizing most of these features in present day American life. In 1890 Wilhelm II, known to the generation of the writer as simply "the Kaiser", dismissed Bismarck and turned to building up the army and navy, developing military industry and making enemies on all sides. He was not prepared for the task which he had inherited in 1888. Always immature, psychologically warped, perhaps in part because of his crippled left arm, sadly susceptible to flattery, he believed in "divine right" monarchy and at the same time loved all things modern - industry and engineering in particular. After he had deposed Bismarck he made Count Georg Leo von Caprivi his chancellor for 4 years, then followed with the once able but then aged Prince Chlodwig zu Hohenlohe-Schillingfuerst of Bavaria. In this man's senility, Wilhelm could, in truth, "railroad" through most of his own ideas, all of which resulted in extensive world involvement.

Map taken from Reference 97

By the last half of the century all of Germany west of the Elbe, but especially the area along the Rhine, had mechanized industry

and eventually outstripped France and England. It had the raw materials and developed a great scientific, educational system and research facilities. After 1871 Germany set the pace for industrial supremacy with a lead in chemicals and electricity, with the latter industry dominated by Werner Siemens and Emil Rathenau. The German phase of the Industrial Revolution embraced a wider variety of materials (electrical, chemical, petroleum and light metals), but coal and iron remained primary. Coal was used for tars and derivatives as diverse as aspirin, dyes and explosives. Iron underwent potable chemical diversification after the invention of the Bessemer converter in 1856. Railroads were necessary to unlock mineral wealth previously cut off from exploration. The German contributions to industrial development included deliberate, planned invention, extensive credit through banks and cartels and human engineering, with the cultivation of an elite in both the military and industry. Even with the Industrial Revolution, Germany maintained an adequate food supply by putting an additional 2,000,000 acres under cultivation.

In the last decade of the 19th century the population of Germany increased 15% to 56,400,000. Forty percent of the people engaged in industry, twelve percent in trade and communication. Friedrich Siemens, with others, developed the open hearth method of making steel directly from ore. In one generation, 1840-1875, these north-central Europeans went from the Middle Ages to Modern Times. (Ref. 24) But there was inadequate urban housing, crowding, exorbitant rents and low wages. Germany's troubles and policies eventually resulting in World War I were not entirely the fault of Kaiser Wilhelm, but of Bismarckian government without a Bismarck. One of the important changes under the Kaiser was the rapid expansion of the German navy. New ships were launched and the Kiel Canal dug from the North Sea to the Baltic, bypassing any possible Danish blockade. In 1897 Admiral Tirpitz was put in charge and the naval program accelerated until well into the next century.

But Germany of this century was not all politics, industry, army and navy. F.W.A. Sertuerner isolated morphine as a pure alkaloid in 1806; Robert Koch established the bacterial cause of anthrax and tuberculosis; Rudolf Virchow (1821-1902) was called the "Pope" of medicine in Europe. He wrote on leukemia, thrombosis, embolism and phlebitis as well as delving into multiple scientific and social

fields. At the end of the century German speaking countries (and we must include Austria in this) had the leadership in medicine. In the period of 1815 to 1840 alone, there were great men in literature, music, education, scholarship, philosophy and science, as well. The University of Berlin was founded in 1811. Some of the more famous names of the era include Beethoven, Schubert, Mendelssohn, Schumann, Goethe and Schopenhauer. (Ref. [25](#), [26](#), [27](#), [28](#), [29](#))

AUSTRIA (Part of the Austro-Hungarian Empire)

Austria was invaded by Napoleon while Great Britain, Russia, Austria and Sweden were forming an alliance, along with Prussia, to contain him. This alliance was the so-called "Third Coalition". The Austrians suffered a defeat at Ulm; Napoleon entered Vienna and then annihilated the Austrians and Russians together in the Battle of Austerlitz in Moravia in late 1805. In the Peace of Pressburg on December 26, 1805 Austria ceded all claims to her Italian and south German territories and dropped from her status as a world power². Emperor Franz (Francis) had to give up his title of Holy Roman Emperor and thereafter the Habsburgs were emperors of Austria and Hungary only. Napoleon reentered Vienna, took up residence in Schoenbrunn Palace and continued to dismember Austria. It was in this desperate situation that Klemens Lothar Metternich, Austrian ambassador to Paris, returned to be imperial chancellor. To understand this complex, capable man, who has strong admirers and vicious detractors among the historians, will require some additional details.

Basically Metternich was probably the greatest diplomat of his time, the French Talleyrand notwithstanding. He arranged a marriage of Princess Marie Louise to Napoleon, contributed a small Austrian contingent to Napoleon's disastrous Moscow expedition of 1812, thus gaining an armistice from the French emperor allowing some breathing room to reform his armies. He then offered to mediate peace proposals with France, Prussia and Russia. Bonaparte refused the terms, was defeated by Prussia and Russia at the Battle of Leipzig (1813) and abdicated. It was Metternich's diplomatic victory and the Treaty of Paris, which followed, called for no territorial concession or reparations, but merely arranged for the European Congress in Vienna to be held two months later. That Congress of Vienna of 1815, which included the "big four" of Russia, England, Prussia³, and Austria, promptly elected Metternich as president.

Amid much pomp, entertainment and back-stage diplomacy, Metternich arranged for Austria to regain much of her old territory in return for giving up Belgium, part of the Netherlands and a few small holdings on the Rhine. Austria gained 4,500,000 people and the undisputed hegemony in Italy. After that Congress, Austria enjoyed her last great time as a prestigious power in Europe, with a period of thirty years of unbroken peace.

An interesting sidelight to the machinations of Metternich and his Austrian emperor has to do with the treatment of the only son of Napoleon. Born in March, 1811 to Marie Louis, daughter of Emperor Franz, Napoleon had his son christened "Napoleon Francis Joseph Charles Bonaparte, King of Rome". After his father's banishment to Elba, the boy was tentatively to be given the title of Prince of Parma, with his mother as regent, but in the end Metternich and the emperor took him to Vienna for "protection" while his mother was given a small principality in Italy to rule. In Vienna, as a bright, handsome child, Napoleon II was raised virtually as a political prisoner until his death from tuberculosis at the age of 21 years. To the end he intermittently hoped for a throne and was actually considered at one time or another for the crowns of Greece, Poland and Belgium, as well as France. His mother took a lover by whom she had several illegitimate children and turned against her banished husband and essentially abandoned her French son. (Ref. [33](#))

Concerning Metternich, the other side of the coin shows that his domestic "system" led to revolution and his eventual downfall. To prevent the rise of nationalism in his multi-racial domain, he developed almost a police state, denying all freedoms. There was no free parliament, no free press, no free university, no intelligent civil service. All liberalism was suppressed. The revolution was led by the intellectuals in 1848, and the aims there were different than those in Germany, for in Austria the revolution was designed at securing autonomy for the component nationalities living under the Habsburg rule. In the turmoil, Metternich was forced to resign and he escaped to London, while Vienna was turned over to the National Guard. The Hungarians adopted their own constitution and other coalitions rose to demand self-rule. The Milanese forced the withdrawal of Austrian troops and the Venetians set up an independent republic again. The Czechs, Moravians and Galicians were all clamoring for autonomy. In the meantime (while

Metternich was still there), the old emperor had died (1835) and the inadequate Ferdinand, hydrocephalic, epileptic and close to an idiot, reigned in name only. Prince Felix von Schwarzenberg assumed the post of chief minister and persuaded the weak Ferdinand to abdicate in favor of his 18 year old grandson Franz-Joseph I and between them, the Habsburg Empire was restored.

In a few years the new emperor took as his bride the beautiful Elizabeth, a Wittelsbach of Bavaria and then proceeded to complete his reign of "sixty-eight years of almost unbroken misfortune and disaster but he never swerved or flinched from his mission"⁴. By remaining neutral in the Crimean War he antagonized Russia and exposed Austria's weaknesses to the whole of Europe. His empire contained 50,000,000 subjects and after his able prime minister's death (Schwarzenberg), he attempted to rule alone as an autocrat. In the field as commander he soon lost Lombardy and other lesser territories and found that his Slav and Magyar troops were not very loyal. Elizabeth left him for all practical purposes, perhaps due in part to her mental health and in part because of very serious mother-in-law problems. Then Bismarck appeared on the scene from the north in Bohemia, with three separate armies. As Bohemia's ally, Austria sent Field Marshal Benedek north to attack. In the battle of Koeniggratz (Sadowa) he eventually met defeat. (See page 1073). In the final peace of that 7 weeks war, Austria was excluded from the German League and Venetia was given up once again to Emmanuel's Italy (1864). Then there was peace for 40 years, until 1914.

Franz-Joseph had picked poor prime ministers after Schwarzenberg. There was no Bismarck, no Disraeli, no Gladstone nor Clemenceau. The one who came nearest to his liking and trust was Count Edward Taaffe, who lasted 14 years in the job and kept some peace by diplomacy only between the Poles, Czechs, Hungarians, Slovenes and the Austrians. But by 1886 there was great political strife between German and Bohemian subjects and Franz-Joseph did not well understand their feelings, but felt the only solution was continual adherence of both to Vienna. Georg von Schoenerer was an early leader of the Pan-Germanic movement, which was also anti-semitic. A program of state ownership of railroads, graduated income tax and the separation of church and school were proposals offered by Linz. Another "radical" was Viktor Adler, who founded the Social Democratic Party and organized demonstrations.

Austria's contributions to world knowledge and culture during this century were fantastic. In medicine alone the accomplishments were legion. Carl Rokitansky was the founder of pathological anatomy; Hermann Nothnagle first evaluated blood pressure in diagnosis; and Ernest Bruecke pioneered in physiology. There were multiple world famous psychiatrists - Freud, Krafft-Ebing, Joseph Brewer and others. Among the orthopedic surgeons were Adolf Lorenz and Lorenz Boehler, Jr. Bela Schick devised the diphtheria skin test, while Johannes Mueller is credited with establishing medicine as a true science. Von Helmholtz developed the ophthalmoscope; Koch worked out the bacteriology of tuberculosis and cholera; and Semmelweiss found the cause of puerperal fever, making one of the great advances in obstetrical care. Probably the greatest surgeon of the late century was Albert Theodor Billroth, born and educated in Germany, but working later in Zurich and especially Vienna, where he was the first to perform extensive operations on the pharynx, larynx and stomach. His students subsequently filled most of the prestigious surgical appointments in Europe. Incidentally, Billroth was also a musician and a great friend of Brahms.

Technological advances in Austria may be listed as follows:

- 1815 - Founding of Vienna Polytechnic
- 1829 - First trial of screw driven vessel, in Trieste Harbor
- 1839 - Invention of the sewing machine by Madersperger of Vienna, and also the time of Austria's first railway
- 1864 - First internal combustion engine invented by Siegfried Marcus
- 1866 - Typewriter invented by Mitterhofer of the Tyrol

The great musicians of Austria included Johann Strauss, Joseph Haydn, Ludwig van Beethoven, Johann Brahms (originally from Hamburg, but settled in Vienna), Richard Wagner (from Bavaria) and Franz Schubert. In 1873 building was started on Vienna University, but in that same year a cholera epidemic broke out and a "Black Friday" occurred on the stock exchange, with a resulting financial crisis, which spread across Europe and even to the United States. By 1890 Vienna had 1,300,000 people.

The Empress Elizabeth was killed by an assassin in Geneva in 1898 and the heir to the throne, her son Rudolph, had committed

suicide some 9 years previously. At the end of the century there were mass meetings of the Social Democrats in Vienna and the cry was "Young Czechs" against Germans. (Ref. 35, 36, 37, 38) Braudel (Ref. 39) quotes the historian of rural Austrian society, Otto Bruenner, as saying that the peasantry of Austria was the real foundation stone of European society and that regardless of changes in government, it had remained essentially -unchanged in structure from Neolithic times right down to the 19th century.

HUNGARY (Part of Austro-Hungarian Empire, and the previous paragraphs must also be read to get a complete picture of Hungary at this period)

After 1790 the chief demand of the Hungarian Diet, whenever the Austrian emperor allowed it to meet, was for wider use of the Magyar language in administration, courts and education. Lexicographers re-fashioned and enriched the native tongue and the cult of language was accompanied by similar dedication to national costumes, dances and the like. The Croats in the empire fought the switch to the Magyar language and began to develop their own tongue, along with a sense of Pan-Slavism. Count Istvan Szechenyi was a great Hungarian nationalist whose books *Kitel* and *Vilag* started the "Reform Era" in Hungary in 1830. He desired Magyarism and reform, but under the blessings of the emperor. His contemporary and eventual opponent, Lajos Kossuth, wanted progress and complete liberty from Austria. In 1840 the government passed a law making Magyar the official language of all institutions of Great Hungary. The Croats were given 6 years to conform. The reaction of the non-Magyars, including the immigrant Saxons and Slavs and the Romanians in Transylvania, was strong. Revolution broke out in Austria in 1848, along with that in much of Europe, and Kossuth took advantage to reform Hungary as a limited monarchy subject to the Austrian monarch, but in many internal respects, almost free. But the Serbs and Croats rebelled against Hungary under their leader, Jellacic.

At first he had Austrian help, but as further revolt occurred in Austria itself, this help soon dwindled and in the end Hungary triumphed, even temporarily breaking away from Austria. Franz-Joseph called on Russia for help and two Russian armies entered Hungary, forcing Kossuth to surrender and he personally fled to Turkey. By 1867 Hungary had re- covered her integrity under Deak,

by the Ausgleich (compromise) of 1867, under which Hungarians won equal status with the German speaking population. The situation had in part been promoted by the Empress Elizabeth, who had a real and compassionate interest in Hungary. Thus began the "Age of Dualism" and one might then truly speak of "Austria-Hungary". Magyarization of all the people then followed, with changes of individual names and places to conform with the Magyar language.

By 1900 Hungary had over a million workers in mining and industry. There were two universities in Hungary proper, one in Croatia. There were a large number of colleges of law, theology, mining, etc. This was the time of the physicist Lorand Eotvds and the physician Semmelweiss, who was actually Hungarian, although part of his work was done in Vienna. Budapest was 79.8% Magyar speaking, but other ethnic frontiers remained on the east, north and west. Jews made up 4.9% of the overall population, 25% in Budapest and they had almost a monopoly in banking and finance. (Ref. 40, 41)

CZECHOSLOVAKIA

This area continued restlessly under the rule of the Austria-Hungarian Empire. Moravia was an important battle ground for Napoleon's rout of the Russian and Austrian forces, in the first decade of the century. After 1840 to 1850 the rapid growth of cities in the Habsburg domains, together with the ravages of cholera resulted in peasant migration into the towns of Bohemia and Hungary to such an extent that the previous pattern of those people learning to speak German and being "Germanized" was changed and a nationalistic ideal appeared. The result was that Prague became a Czech-speaking city within one-half century, just as Budapest had become a Magyar-speaking capital.

In the last of the century there was growing business prosperity, with particular emphasis on textiles, shoes, cheap china and glass, sugar refineries, breweries, coal and graphite mines and the great Skoda machine shop at Pilsen. Prague University had new vigor with Professor Thomas Masaryk becoming one of the greatest of Czech philosophers and patriots. He later became a member of the Austrian Parliament, promoting the Bohemian cause and in the next century was to become the first president of the Czechoslovakian Republic. In Moravia, there were riots in 1899 with the looting of

Jewish and German houses so that troops had to be called out to restore order.

SWITZERLAND

We noted in the last chapter that Napoleon had conquered Switzerland. In 1803 he allowed a satisfactory federal constitution and with Bonaparte's fall, the Confederation was restored. In 1815 the Congress of Vienna guaranteed the perpetual neutrality of that land and this had never been violated to date. After a short civil war in 1847 a new close national union developed and a new federal constitution was written. All tariff barriers between the cantons were removed between 1848 and 1874. The International Red Cross was formed at the Geneva Convention of 1864, chiefly due to the efforts of Jean Henri Dunant, a Swiss banker, who had happened to see a battlefield in northern Italy littered with tens of thousands of wounded soldiers lying unattended on the ground. The Red Cross insignia is the Swiss flag, with colors reversed. (Ref. [42](#), [43](#))

WESTERN EUROPE

SPAIN

The Napoleonic Wars brought Spain to the edge of ruin. After war with France and then against England, as a French ally, Spain's sea power was destroyed and Napoleon put his brother Joseph on the Spanish throne in 1805. In 1812 Joseph, with his Cortes (Congress), abolished the Inquisition and limited the powers of the Catholic Church. Fighting continued, however, in the Peninsular War, with Great Britain entered on the side of the Spanish people and eventually driving out the French. The locals had never accepted Joseph and Napoleon's dominion was already collapsing, anyway, so after the Peninsular War, King Ferdinand VII resumed rule and revoked the new laws regarding the church. Spanish overseas colonies were revolting, however, and the people of Spain blamed the king, so he was taken prisoner and anarchy followed, with various temporary rulers, including Isabella II, who reigned from 1833 to 1868, at first with regents. The contesting of her succession by her uncle, Don Carlos led to the Carlist Wars. In these revolts most of the Basque provinces and much of Catalonia supported Carlos. Civil wars and insurrections followed one after another until

1876, over a year after Isabella's son Alfonso XII had been proclaimed king. The economy remained critical and Spain had industry in only a few small areas. Even in 1829 the trade was only 1/3 of what it had been in 1785. The last great European famine was in Andalusia in 1882. On the death of Alfonso XII, his posthumous son Alfonso XIII reigned during the remainder of the century with his mother as regent. (Ref. [44](#), [45](#))

The Spanish-American War developed in 1898, secondary to the long-standing insurrection in Cuba, with the American press sympathetic to the rebels. When a United States ship, the U.S.S. Maine, was mysteriously blown up in Havana Harbor, war was formally declared. When that war ended and the treaty signed in Paris, the last of Spanish America was lost. (Ref. [46](#), [47](#), [48](#)) (Some additional information about Spain is to be found in the next section on PORTUGAL)

PORTUGAL

As the century opened Portugal was ruled by Pedro III, under the regency of his mother, Maria I. Trouble with the French led to a humiliating treaty in 1801 by which Portugal had to renounce treaties with England and pay heavy indemnities. Then when Spain temporarily allied with France, it was Manuel de Godoy, Spanish chief minister and lover of the Spanish Queen Maria Luisa, who invited Napoleon's aid in the dismemberment of Portugal. A French army under General Andoche Junot crossed into Spain and then a combined French and Spanish force took off for Portugal. The Portuguese royal family, including the Prince Regent Dom Joao, with 15,000 courtiers, took off for Brazil under protection of the British fleet. As Junot entered Lisbon he immediately imposed an indemnity of 100 million francs. (1807). In the meantime, however, the new Spanish King Joseph, put on the throne by Napoleon, had met with stiff local opposition and in 1808 two French divisions, mistakenly believing they were surrounded by greatly superior forces, had surrendered and 22,800 of them were interned on the island of Cabrera, where hundreds of them died of starvation or disease. The English government, now realizing that Junot's forces in Lisbon could not be reinforced from Spain, sent Sir Arthur Wellesley (the future Duke of Wellington) to Portugal with a fleet and army. He was soon joined by bands of Portuguese infantry and on August 21, 1808 he completely defeated Junot's army as it came

out of Lisbon. This was the Peninsular War, which we have mentioned previously. The British forces were supplied by sea, using techniques developed during the American Revolution. In a crucial battle just outside Lisbon in 1810-11 the well-fed British troops pushed back some 250,000 starved French soldiers. All of this allowed Portugal to again be in alliance with England and by 1814 Wellington had even helped the Spanish push the French out of Spain, also.

But Portugal's troubles were not over. A liberal revolution against the regency broke out in 1820 and Joao VI returned from Brazil. His forces stopped the insurrection but he accepted a liberal constitution in 1822 in the same year that Brazil declared its independence under Pedro I, who was Joao's elder son. In spite of these things, Portugal made progress, with sanitary reforms, the building of railroads, telephone lines and schools and the abolition of slavery in her colonies. In the last half of the century under Pedro V and Louis I of the House of Coburg-Braganza, there was respite from civil strife, but there were political and financial troubles resulting from long civil wars which had raged during the middle years of this period. There were two opposing factions of professional politicians, the Regenerators and the Progressives and they developed a system of rotating power, with a resulting sterile, pseudo-parliamentary system. At Louis' death in 1889 sporadic revolts, strikes and conspiracies returned. Louis' son Carlos I (Charles) even tried in 1900 to support a dictatorship under Joao Franco, head of the Regenerator party, but this caused a violent reaction, and in 1908 Carlos and the heir apparent were shot in a public square in Lisbon. (Ref. [49](#), [50](#), [51](#), [52](#))

FRANCE

In the last chapter we noted that at the end of the 18th century Napoleon returned to France as consul after his escape from the British in his Egyptian fiasco.

We should add that on November 12, 1799 the Provisional Consuls - Napoleon, Sieyes and Roger Ducos - met in Luxembourg Palace to make plans to rebuild France, a nation in economic, political, religious and moral disarray. Some effects of the French Revolution had been positive, such as peasant proprietorship, capitalism, replacement of feudalism by a free peasantry, encouragement of science, a world view of theology and a national

system of schools. But true democracy was given only a nod as all officials from local to national levels were made by appointment by the central government. In effect the central government was soon just Napoleon.

We must pause to give at least a thumb-nail sketch of this man, Napoleon Bonaparte, who has had some 200,000 books and pamphlets written about him and who has been labeled by some as a hero struggling to give unity and law to Europe and by others as an ogre, who drained the blood of France and ravaged Europe. He was born on Corsica in 1769, only a few months after France had purchased that mountainous island from Genoa and Napoleon always remained basically an Italian Corsican of noble Tuscan pedigree. His brother Joseph was initially made King of Naples, then of Spain; his brother Louis married a de Beauharnais and became King of Holland; sister Maria Anna Elisa was the Grand Duchess of Tuscany; Pauline married Prince Camillo Borghese; Maria Caroline married Joachim Murat and became Queen of Naples; while brother Jerome rose to be King of Westphalia.

In his youth Napoleon did well in mathematics, geography, history, and Plutarch. He was selected from his French military school- to receive advanced instruction at the Ecole Militaire and then went on to rapid advancement in the French army. His first wife, Josephine de Beauharnais, widow of a *vicomte* murdered in the revolution, was older than Napoleon by 6 years and was the mother of 2 before her marriage to Bonaparte. Although devoted to her and yet at times tormented by her occasional- infidelities, Napoleon finally divorced Josephine because she remained childless by him. He then married the Austrian Archduchess, Maria Louise, who did present him with an heir, only about 3 years before his final military defeats⁵.

To summarize in advance the information to follow, Bonaparte ruled France for 15 years as First Consul of the First Republic (1799-1804) and as emperor from 1804 to 1814 and during that time conquered almost the whole of Europe, finally being defeated by a coalition of Austria, Prussia and Russia at the Battle of Leipzig in Germany in October 1813 and subsequently again by the British at Waterloo, Belgium in 1814. Louis XVIII was then called to be king. Napoleon himself estimated that his campaigns resulted in the deaths of 1,700,000 Frenchmen, more than were killed in both subsequent World Wars. It is interesting, however, that more

soldiers died of typhus far more in the Napoleonic Wars than in battle. Small-pox was not a problem in his own armies as he had had all his troops vaccinated in 1805, introducing this to Europe. He also pioneered the large scale use of canned food for his troops. The road to defeat was a long one. Napoleon abandoned the idea of siege warfare early and aimed at defeating an enemy by outmaneuvering him.

Crushing defeats were given to Austria at Austerlitz (1805), to Prussia at Jena (1806) and to Russia at Friedland (1807). In 1808 in a rapid invasion of Spain a British expedition force was forced back to the sea⁶. Switzerland came under French protection, Spain, northeast Italy, Naples and Westphalia became satellite kingdoms under the Bonaparte family. Only reduced kingdoms of Austria and Prussia preserved some semblance of independence. Napoleon's great international frustration was England and his attempt to avenge that enemy was probably the cause of his downfall. Sitting in conquered Berlin in late 1806, as the son of Maria Louise and the grandson of Emperor Franz, he was held virtually as a prisoner of Austria from childhood until his death. More details are given on page 1077. The last thoughts of Napoleon I on his death bed were of this boy. (Ref. 53)

He decreed that all ports and coasts of the European continent were closed to the entry of British goods. The blockade worked at first and by 1810 England was in a severe economic depression while France prospered with an accelerated Industrial Revolution. Then suddenly the situation reversed. The French textile industry was unable to get raw material and capital, a banking firm in Lubeck failed and in 1811 France had a great depression, with bank failures, factory closings, strikes, poverty, riots and areas of starvation. The blockade had been particularly damaging to Russia also and after Czar Alexander had made peace with Turkey, he signed a mutual aid pact with Sweden and offered an alliance with England, while he opened his ports to ships of all nations. Then he declared war on France.

The mobilizations of both the Russians and French were massive. Napoleon had some difficulty conscripting the now somewhat satiated French, but annexations to France almost doubled the number of "Frenchmen" to about 44,000,000 by 1810 so that eventually he had an army of 680,000 fighting men, less than 1/2 of which were actually French. Only a minority even spoke French.

(Ref. 54) Relentlessly he churned on to Vilna, Smolensk and Moscow, with the Russian armies retreating in an orderly fashion ahead of him and burning and destroying all possible provisions. As he arrived in Moscow he found the city almost deserted and then mysteriously 2/3 of the city was burned, whether by the French, Russian soldiers or by order of Count Rostopchin, governor of Moscow, no one knows for certain. Finding no one to fight and with winter approaching, Napoleon decided to return to central Europe. Winter caught him and Russian troops harassed him from the flanks and the rear. The loss of men was unbelievable and only 30,000 men re-crossed the Nieman River into East Prussia in December, 1812. Dominique-Jean Larrey, Napoleon's chief surgeon is said to have performed over 200 amputations during one 24 hour period during that Russian campaign. (Ref. 55)

Czar Alexander had followed the retreating French armies as they approached East Prussia and he urged the king and people of Prussia to join him against Napoleon. In the meantime the latter was trying to recoup his financial losses, conscript still another army, defend his Italian possessions against Austria and console the French people for his defeat in Russia. He arranged a temporary truce through the help of Metternich, but all nations simply used that time for more war preparation. Napoleon received a contingent of men from Denmark and returned to the battles, but Bernadotte of Sweden brought an army to join the allies of Prussia, Russia, Bohemia and Austria and finally after Napoleon's Saxony and Bavarian troops deserted him, he was soundly defeated at Leipzig in 3 days of terrible carnage in October of 1813.

The Netherlands then overthrew French rule (with Prussian help), parts of Italy were lost again to Austria, English troops took the Scheldt and Wellington crossed from Spain into France (see page 1083). Unemployment and poverty was all over France and the stock market fell almost 50% in the year. The senate and legislature were in open revolt against the emperor and after a few more military set-backs with the allied armies driving westward and entering Paris on March 31, 1814, the senate deposed Napoleon and chose Talleyrand as President of a new republic. The Russian czar prevented the invading armies from pillaging Paris and arranged for Napoleon's exile on the island of Elba, with an annual stipend of 2,000,000 francs, which the French government failed to pay.

Louis XVIII, grandson of Louis XV, "59 years of age, genial and

courteous, lazy and slow, fat and gouty"⁷ was called to rule France. He had the good sense to leave alone the Napoleonic Code, the judiciary and the structure of the economy, but he soon sided with the Church, which was demanding that all ecclesiastical property confiscated during the Revolution should be returned. Meanwhile the Congress of Vienna had stripped France of her recent territorial expansions, with both Prussia and Austria gaining much land and power.

On the island of Elba, Napoleon, with 400 of his old Imperial Guard and 800 volunteer grenadiers, continued to receive information about discontent in the French army, the fears of the peasantry about losing their land, the enforcement of Catholic worship and the continued Jacobin activity. On February 26, 1815 he loaded his men on 6 ships and sailed for the south shore of France. By March 20th he entered Paris again, never having fired a shot and having gained additional troops all along the long journey. Even General Michael Ney, sent by King Louis XVIII with 6,000 troops to stop Bonaparte, reversed his loyalties, turned and joined Napoleon's march and was with him as he resumed the exercise of power as Emperor of France. Ney was later to face a firing squad for this action.

But Napoleon's foreign enemies were now more firmly united against him than ever and their armies pressed in on him from all sides, even as he found that France was not truly all united behind him. The most immediate external danger was from Belgium, where Marshal Blucher had a Prussian army of 120,000 and the British Duke of Wellington had an army of British, Dutch, Belgian and German recruits totaling 93,000. In the hope of challenging these foes one at a time, Napoleon crossed into Belgium with 126,000 men. There were many battles on the flanks and the center, but the decisive defeat at Waterloo ended Napoleon's dreams, even as urinary tract stones and gastric cancer were already beginning to end his life. One hundred days after his resumption of rule he again abdicated under force and was banished to St. Helena, 1,200 miles off the coast of Africa. There he lived, still surrounded by many of his faithful aides, reading many hours a day from some 400 books (70 by Voltaire) and eventually dictating his memoirs, until his death supposedly from cancer on May 5, 1821, at the age of 51 years. Recently one researcher has written that he believes he has positive evidence that Napoleon died of chronic arsenic poisoning⁸,

administered by Charles Tristan de Montholon, a count of the French aristocracy. (Ref. 57) In answer, however, the editors of "Science" (Ref. 58) have denied this, with "proof" that any arsenic present in the hair of Napoleon came from the green wallpaper of that time and that non-fatal doses of antimony used in medicines could also have given false readings of arsenic in the previous tests. Overall, the French Revolution led not to popular and republican government, but to military dictatorship, followed by monarchical restoration. It did not result in universal suffrage. Property was necessary and in 1815 only 1% to 3% of the population was qualified to vote. Even as late as 1846 the total French electorate was estimated at 241,000 or 2.8% of the total male population over 21 years of age. Yet much was accomplished in that there was wholesale cancellation of seigneurial rights and fairly extensive dispersal of land ownership through confiscation and sale of church and noble properties, making 19th century France a nation of peasant farmers. Out of 12,000,000 families in the nation, perhaps 200 to 300 could be called opulent. (Ref. 60) But the canny peasants, unwilling to divide their land among large numbers of children according to the Napoleonic Code, restricted the size of their families. The resulting slow population increase inhibited a really rapid rate of industrialization so that even at the end of the century industry was still relatively small. A fundamental French weakness was the dependence on costly overland transport. A great effect of the war years was to choke off the Atlantic face of France and build up the Rhine-Rhone valleys' industries. (Ref. 61) The government did overcome the old church condemnation of interest with an 1807 law which fixed the interest rate at 5% on loans and 6% on commercial paper, while anything above that was considered usury. (Ref. 62) There were a few industrial advancements. Having been cut off from imported sugar by the British counter-blockade early in the century, by 1840 France had built 58 sugar-beet factories. The population control was helped in 1830 when cholera killed 1,000 people a day. After that the population of Paris did increase rapidly, however, from 1,242,000 in 1851 to 2,212,000 in 1872. Alfred Sauvy, French sociologist, calculated that between 1810 and 1900 the purchasing power of the average worker in that nation increased by 80%. Napoleon's administrative reforms in the Code Civil contained 2,281 articles and countless amendments and still constitute the basic French legal text.

Second only to Napoleon in interest and influence in Europe in this century was Charles Maurice de Talleyrand-Perigord. Born with a clubfoot, he over-compensated in his young adult days by becoming both a bishop in the Roman Catholic Church and at the same time a gambling, wenching, rogue. As one of the leaders of the Revolution, he had written a good part of its Declaration of the Rights of Man, but by 1794 even he had to escape the "Terror" by going to America. Back in Paris as foreign minister in 1796, he had soon insulted an American delegation and accumulated an enormous private fortune from the bribes of various other foreign delegations and from "percentages" of such transactions as the Louisiana Purchase, which he helped to negotiate for Napoleon. In 1808, however, when Napoleon kidnapped the Spanish royal family so that his brother Joseph could have the throne and then made Talleyrand the family's jailer, in effect, the aristocratic French- man suddenly turned from faithful servant to the emperor's foe. He started correspondence with the Russian czar, setting in motion the alliances which eventually led to Napoleon's downfall. When the little emperor was out of power in 1816, a new provisional government, headed by Talleyrand, called a Bourbon king back to power and extracted France from its damaging wars. Throughout all that time, that indefatigable man continued his elegant living - fulfilling his desires with multiple women, young and old. It is said that the painter Eugene Delacroix was his natural son. After the Revolution of 1830, Talleyrand survived and remained in favor with the victorious Duke of Orleans. He served as ambassador to England from 1830-34, helping to avert another general European War. Just before his death in 1838, he signed an agreement with Rome, repenting his multiple sins and re-entering the folds of the Catholic Church. (Ref. [63](#))

The end of the Napoleonic era did not terminate internal strife in France. The successor of Louis XVIII, Charles XI, an ultra-royalist, was overthrown by revolution in 1830 to be replaced by Louis Philippe, who reigned only until 1848 when he too was disposed of by revolt. Actually these "revolutions" were in reality only Paris disorders, which in some other countries could have been kept under manageable proportions by political processes, but not in France. After Louis Philippe, the Second Republic was proclaimed and Louis Napoleon, nephew of Bonaparte, was elected president. He immediately made himself dictator and emperor, so that the

Second Empire was thus launched in 1852. As Napoleon III, he tried to follow in his uncle's footsteps, but had not the ability. He wanted a strong Prussia, a powerful Sardinia-Piedmont, with an Italian Federation, which he hoped would be favorable to France. As Napoleon I had sold Louisiana to the United States in 1803 when he desperately needed money, so Napoleon III decided on a new venture in America by sending French troops into Mexico to make the Archduke Maximilian of Austria Emperor of Mexico. But the French troops were always somewhat anxious there and when the United States emphasized the Monroe Doctrine after its Civil War, Napoleon III abandoned Maximilian to his fate at the hands of the Mexicans. The second French emperor, himself, ended his career as a prisoner of the Germans in the Franco-German War of 1870, in which France lost Alsace⁹, a part of Lorraine and had to pay heavy indemnities. After a period of German occupation of Paris and another civil war, a stable French government was finally established as the Third Republic in 1871. Adolphe Thiers headed the provisional Commune of Paris and by 1873 Marshal MacMahon, a royalist sympathizer, was elected president.

French imperialism in Africa and the Far East followed, perhaps as an antidote for the loss of Alsace and Lorraine. The French also had a persistent dream of overturning British naval supremacy. Before the War of 1870 they had developed a good start with the development of their mobile, high fire-power gun and torpedo boats, but then they had to turn their money and energies to the land war with Germany. In 1887 Gustave Zede designed the first practical submarine, although the periscope, which allowed the aiming of torpedoes while submerged, was not developed until after the turn of the century.

In 1893 Schneider-Creusot introduced the famous French 75 millimeter field gun, which revolutionized artillery design. Russia, as France's ally of the moment, purchased many of those guns. (Ref. [65](#), [66](#), [67](#), [68](#), [69](#), [70](#), [71](#))

In this century Louis Pasteur made great discoveries in chemistry, biology and medicine and Francois Magendie and his pupil Claude Bernard made great advances in human physiology. Charles Brown-Sequard is sometimes considered the founder of endocrinology and Rene' Laennec, working early in the century is considered one of the great clinicians of all time, best remembered for his invention of the stethoscope. But still French medicine was crude in many ways.

Blood letting was still a major treatment, but rather than opening veins, the French started using leeches, importing over 40,000,000 of them in a single year.

This practice was continued until late in the century. The principle of canning with heat was developed by Nicholas Appert in 1810. Francois Arago (and Humphrey Davy, independently) discovered that an electric current could be made to magnetize iron. (Ref. [72](#), [73](#), [74](#)) Work was done in mathematics by Lagrange and Legendre and in histology by Bichat.

THE NETHERLANDS AND BELGIUM

Napoleon's take-over of Belgium caused Britain to enter the war against him and we have seen above how the final battles and French defeat occurred on Belgian soil. At the termination of the initial Napoleonic Wars, the Congress of Vienna created the Kingdom of the Netherlands and gave William of Holland the Austrian Netherlands as compensation for some Dutch colonial losses. Since this was the first time that the northern and southern parts of the Netherlands had been united since the 16th century, there were now many differences in religion and in the economics of the two sections. The Belgians felt themselves conquered subjects rather than equals and as part of a July revolution in Paris in 1830, the Belgians rose up in Brussels and by October had declared their independence from King William and had separated themselves from the Dutch and the Dutch language. But there were still two peoples and two languages in the liberated Belgium.

56% of the people were Flemings in the north, while 32% were Walloons, speaking French in the south. They elected Leopold as a Belgian king. By 1850 their railroad network was virtually complete and by the last of the century there was mechanized industry in a great part of Belgium, spreading out from the Walloon district. Mechanization, however, ruined the old artisan trade of making guns by hand at Liege, so that city shrank in world importance. (Ref. [75](#), [76](#), [77](#), [78](#), [79](#))

BRITISH ISLES

All four of the countries of the British Isles were now united under the government of Great Britain. The nation went to war with Napoleon when France took Belgium and Admiral Nelson won a great victory over the French fleet at Trafalgar in 1805. As we have

previously noted, when Napoleon had control of the continent he established a port and coast blockade to exclude British goods and this was so effective that England came close to starvation in the years 1810 and 1811. Within half a century, however, with the help of great British seamen, the nation overcame that to build a powerful and civilizing empire, in spite of the fact that at the same time their King George III had become completely insane. The English, although socially and economically divided into classes, were in another sense surprisingly homogenous. They were almost all Protestant, with only some 60,000 Catholics (chiefly of Irish origin) and some 26,000 Jews, almost all of whom lived in London and who were still without civil liberties. Nevertheless, it was the Jewish banker, Nathan Rothschild who established a branch bank in London in 1810 and transmitted the subsidies from England to Austria and Prussia that enabled them to fight and defeat Napoleon. Thereafter he played a leading role in the industrial and commercial expansion of England.

Actually England recovered from Napoleon's blockaded ports by establishing a naval blockade of her own and carried it to the extent of searching neutral ships, a feature which led to the War of 1812 with the United States¹⁰. At the peak of mobilization in 1814, some 500,000 men, representing 4% of the active work force of Britain, were in the armed services. Just as in France, this helped the unemployment situation. After the Congress of Vienna had restored a balance of power in Europe, however, England was left loaded with debt and an economic depression which threatened revolution at the time that William IV came to the throne in 1830. He helped to pass the Reform Bill, which gave a vote to the middle classes and enlarged the House of Commons. In the last of the century England recovered in all ways, economically and politically in particular, helped in large part by the great ministers - Sir Robert Peel, Benjamin Disraeli and William F. Gladstone. For nearly 20 years the last two alternated as prime minister and no one disputed their leadership under the great Queen Victoria. A number of far reaching social changes occurred, such as the enfranchisement of urban working men in 1867, the secret ballot in 1872 and a nearly universal male suffrage in 1884.

After 1870, European alignments began to shape up in preparation for the great World War of 1912. In England, Gladstone was pursuing a foreign policy later carried on by Disraeli, which was

designed to antagonize the European continent. In the last decade of the century even the British public was made aware that the country was being flooded with German goods and by 1900 the armaments race made it obvious that the real threat lay in Berlin. Britain had occupied Egyptian soil in 1882 and the unseated French retaliated by concluding an alliance with Russia, which was already growing rapidly, with French investment capital. After Britain was firmly established in the Mediterranean (she also occupied Cyprus in 1877) the old need to prop up Turkey was gone and that country was left open for German penetration. In the Boer War of 1899-1902 Britain gained additional territory in South Africa.

In spite of the apparent political advancements in this century, the common people of Britain had many problems. Education in England was poor, overall, with an estimated 2,000,000 children in England and Wales receiving no education at all in 1806. Women were used to carry coal up from the mines as much as 100 feet. In Scotland the coal and salt miners were still legally serfs, bound to the mines for life and even wearing collars as visible signs of their slavery. (Ref. 80) Other strange things were occurring in that far northern country. With the idea of clearing the inland valleys for the raising of sheep, the inhabitants of those areas were forcibly evicted and sent to the coast where they were supposed to work in fisheries, but the latter had not yet been built. There was much brutality among the frightened and weeping people and a few died. The fisheries were never very successful and again many people left for Canada. A large number of impoverished highlanders joined the British army. There were frequent famines, with the worst following the potato blight in 1846. There were also epidemics of cholera and food riots. Eventually economic recovery and the Industrial Revolution arrived in Scotland with the establishment of new coke-fired blast furnaces in some of the desolate regions of the country. The short-barreled, extra large gun used on Nelson's ships at Trafalgar, the "carronade", was named for the Carron works in Scotland. (Ref. 81, 82)

By 1810 still some 3/4 of the agricultural laborers in Great Britain were illiterate, but then there were more people working in trade, manufacturing and handicrafts than on the farms. In 1812 there was an insurrection in Yorkshire over the cotton loom. Thomas (Ref. 83) says that if the government had taken labor's side there would have been no Industrial Revolution. It was not until

1870 that a national system of elementary schools, separate from the church, was established in England, although Scotland had initiated this earlier. In general the British commoners were still quite coarse in their daily living. Even in 1820 the sewers in London were inferior to those of Rome in the first century of the Christian era. As late as 1897 sailors in the British navy were forbidden to use knives and forks, as this was felt to be unmanly and apt to compromise discipline.

Great Britain, France and Germany all faced agricultural crises in this century. Railroads, steamships and refrigeration had made it possible for the vast new areas in Russia, North America, and Australia to sell their grain and meat in European markets at relatively low prices and the economy became displaced. In Britain, the fall of wheat and meat prices speeded the break-up of rural society and undermined the economic foundations of the landed oligarchy. A disastrous cattle epidemic between 1863 and 1867 added to the agricultural problems so that initially local meat prices soared and imports rose from 16,000 pounds in 1866 to 22,000,000 pounds by 1871. Later the manufacture of ice led to the fish and chips industry. Between 1870 and 1900 land devoted to grain diminished by 1/4 as dairy farming, fruits and vegetables became more common. But even in 1890 83% of children had no solid food except bread and all people tended to get scurvy, rickets and tuberculosis.

As we noted in the last chapter, modern industrialism began in England and involved coal and iron, with a technology which flowered about the midpoint of this 19th century. 30,000,000 tons of coal were mined in 1840 and by 1850 Great Britain owned more net tons of commercial shipping than France, the United States and the German states all put together. The importance of military procurement in the promotion of the Industrial Revolution is often overlooked. Mass production of small-arms and a decisive stimulus to new techniques in artillery were by-products of the Crimean War, in which deficiencies of the British and French forces became the source of public scorn. A further byproduct was the discovery of the Bessemer process for making steel, as Henry Bessemer experimented with artillery design¹¹ (Ref. 84) In 1870 Britain already produced more steel than the combined output of France and Germany and then, using the Bessemer converter and the Gilchrist-Thomas steel process, England boosted the world output from 540,000 tons in

1870 to 14,600,000 tons in 1895. The British population grew by 10 million in this century. In the 59 years up to 1815 the nation had been at war (chiefly with France) for 37 years and in the year 1814 had 1,062,000 men under arms out of a total of 12,000,000 on the islands and yet the industrial changes went on. A certain looseness in the texture of British society perhaps stimulated inventiveness and the strains of war, changes in overseas trading patterns and fluctuations in the supply of money and the price levels may all have contributed to weakening traditional resistances to economic changes. From the first Liverpool-to-Manchester Railway in 1830, a modern railroad system was completed by 1870. By that time Britain had 60% of the world's steam tonnage on the seas, but there was still more tonnage registered under sail than steam. (Ref. 85)

Late in the century British captains of industry tended to rest on their laurels and the new generation became attracted to the cultivated life of a leisure class. There was also a definite and deliberate lack of interest among the industrialists in any pure science and research. Although the aniline dye industry was started in Britain it was soon taken over by the German chemists in the 1860s. Still another liability was a law against the modern joint-stock companies, on the books until 1855, and the prohibition of limited liability until 1855. Still another British government decision had world-wide consequences. In 1864 the production of all artillery for the British services was entrusted to the Woolwich arsenal. Other firms, including the large Armstrong armament manufacturer, were forced to rely on foreign sales and this soon resulted in some danger to British security. Armstrong built a cruiser for Chile in 1882 that could outrun all existing capital ships, while still maintaining excellent firepower¹². Such cruisers in foreign hands, plus the new French concentrations on relatively inexpensive gun-boats and fast torpedo boats, all tended to nullify Britain's naval preeminence and put her trans-Atlantic supply lines in jeopardy. It was about 1886 before the government realized that William Armstrong's private plants would have to be used for naval armaments and ships to keep England abreast of the rest of the European world. Under a bill passed in 1889 the Royal Navy received even greater appropriations than it had requested and new ships were built using nickel steel armor and full steam propulsion. Older ships were re-built and masts removed. Significant changes in

production and technology of land armaments did not occur until the time of the Boer War in 1899. (Ref. [87](#))

In spite of industry's lack of interest, some pure science achievements were made in this period. John Dalton revolutionized theoretical chemistry with his Atomic Theory, as early as 1804. Humphrey Davy used electrolysis to discover and isolate sodium, potassium, barium, boron, strontium, calcium and magnesium and he demonstrated the potentials of producing both heat and light from electric current. There was public electric lighting in London in the 1880s. In other fields, there were researches on the nervous system and brain by Charles Bell and Lister first used antiseptic surgery in 1865, along with some anesthesia. Simpson of Edinburgh had used chloroform as early as 1847. As late as 1854 there were still 14,000 cholera victims with 618 deaths in London, even though the city had such great clinicians as Astley Cooper, Richard Bright, Thomas Addison and Thomas Hodgkin, all of whom have had diseases named after them and all of whom worked at the famous Guy's Hospital and Medical School. Noteworthy surgeons of the era were Benjamin Brodie and James Paget. Dental caries was rampant, apparently secondary to excess use of sugar and cheap, canned milk.

Early 19th century philosophy was little influenced by science but spawned some famous doubters such as Tom Paine, who wrote on the fallacies of the Christian legend; William Godwin, who felt that morality is nothing but a calculation of consequences and Malthus, who foretold the starvation of man resulting from his fertility. Britain led the world in literature. It was the time of the prolific novelist, Sir Walter Scott of Scotland, born in the preceding century, who wrote such favorites as *The Lady of the Lake* and *Waverly*. In England proper, women led among the novelists, with Jane Austen, Ann Radcliffe, unhappy Frances Burney and Maria Edgeworth, but the men dominated poetry. In the Lake District of northwest England, early in the century, there lived three of England's great poets - William Wordsworth, Samuel Taylor Coleridge and the worst poet but the greatest gentlemen. Robert Southey. And then there were the "rebel poets" - Byron and Shelley - friends, philanderers, travelers and geniuses. Lord George Gordon Byron of noble heritage was born with a right club-foot, but this did not prevent him from living and loving extravagantly, in and out of marriage and in and out of many European countries. He died in

Greece in 1824 as the leader of a squad of 600 Suliotes (part Greek, part Albanian barbarians) in the Greek Revolution. His partner in much of his sin and fun, Percy Bysshe Shelley, also of lesser nobility parents, was expelled from Oxford for favoring atheism and then became a renegade poet and lover, joining Byron in Switzerland and later in Italy. Not yet 30 years of age, he suffered a nervous breakdown, contemplated suicide and then was drowned off the coast of Italy in a storm and shipwreck in 1822. He had just written his last poem, entitled "The Triumph of Life". Last but not least of the poets was John Keats, who died of acute tuberculosis at the early age of 26 years.

Charles Darwin's *Origin of Species* in mid-century precipitated a whole series of profound re-evaluations in philosophy and social thought as well as another crisis in religious circles. His work, however, was only the end result of many previous studies. For example, Charles Lyell's *Principles of Geology*, published in 1830, had emphasized the theory of uniformitarianism, that geological history was one of slow, uniform orderly development brought about by accumulation of constant, small changes. This was at odds with the Biblical creation. Darwin, himself, refrained from attacking the Bible, but others, like his friend and publicist, Thomas Huxley, were not so reticent. Darwinism was even used as an endorsement of industrial capitalism and laissez-faire and conversely on the continent, particularly, as a racist-militarist endorsement that "the strong must rule". (Ref. [for all of ENGLAND] [89](#), [90](#), [91](#), [92](#), [93](#), [94](#), [95](#))

Ireland deserves an additional paragraph or two in the tale of this century. After the Act of Union of 1800, which joined Ireland to England, Daniel O'Connell had won the right for Catholics to sit in Parliament and hold office, by 1829. Then he immediately began to agitate for repeal of the Union, to free Ireland again. By the 1840s Ireland's population had reached 8,500,000 (almost 3 times its 1973 level) and 4,000,000 of those people lived almost entirely on potatoes. The American potato had been introduced in the 1580s and the Irish had become very dependent on that food. When a parasitic fungus initiated the great potato blight in 1845, there were soon not only no potatoes to eat but none for seed for the next season and livestock had to be slaughtered, because they were also without food. Hunger was soon accompanied by scurvy (because no vitamin C) and then failing eyesight, acute nervous debilities and

sometimes even dementia, apparently from the lack of vitamins A and B7, which had previously been obtained from milk. There was a tremendous emigration of the Irish, some to England, but most to the United States, so that by 1851 some 250,000 were arriving at Ellis Island each year. The famine only increased Irish bitterness with England and in the 1860s and 70s there was new agitation for independence, fanned by the Fenians, who acted secretly and violently. In opposition to that extremism, Charles Stewart Parnell fought in Parliament for simple autonomy in internal matters. Some land reforms were obtained through the help of Gladstone, but to the English the idea of real separation was unthinkable.

Simultaneous with the great medical tradition that developed in Paris in the first half of the century, a clinical investigation center arose in Dublin at Meath Hospital. Three men in particular should be named and, although trained in Scotland, they became famous as the "Irish School". They were John Cheyne, William Stokes¹³, and perhaps the most famous of all, Robert James Graves, known for his description of toxic goiter (Graves' Disease) and his bedside teaching. Abraham Colles and Robert William Smith described the mechanics and treatment of various wrist fractures and the latter wrote about neurofibromatosis before Von Recklinghausen described it in 1882, even though the disease bears the latter's name. (Ref. [96](#), [97](#), [98](#), [99](#), [100](#))

SCANDINAVIA

Two completely unrelated facts about Scandinavia, as a whole, are mentioned here. First it should be noted that the Lapps, living across the north of all Scandinavia, are the sole European survivors of the old Arctic reindeer hunting cultures. They call themselves "Saami" and they pursue fishing, whaling and limited farming in some areas where there is a warming influence from the Gulf Stream system. They travel on skis, following the migrating reindeer herds. There are North, South and East Lappish people, each distinguished by the types of hats they wear. (Ref. [101](#)) The second factor of note is that by mid-century there were railroad lines in all Scandinavian countries. (Ref. [102](#))

NORWAY

At the close of the Napoleonic Wars, Great Britain forced Denmark to cede Norway to Sweden, but the Norwegians refused to accept the Treaty of Kiel, proclaimed themselves an independent nation, adopted a constitution and elected the former Danish governor, Christian Frederick, as their king. May 17, 1814 became their Independence Day. The Swedes retaliated with warfare, but in 2 weeks a settlement was made, with the king of Sweden becoming also the king of Norway, but respecting the Norwegian constitution and giving, in effect, an autonomous government. The first king of the two countries under that arrangement was Karl Johann (Charles John) Bernadotte. In 1844 true parliamentary government came into effect, although there was still much mutual irritation with Sweden. Near the end of the century, with industries and shipping growing, the desire for complete independence again became very strong and just after the turn of the century (1905) the parliament deposed the Swedish king and elected again a Danish prince to rule them as Haakon VII. Some Norwegian merchants became rich using ice for a fresh-fish industry, which replaced the old salted herring. This was the period of Henrik Ibsen, one of Norway's literary greats. (Ref. [103](#), [104](#), [105](#))

SWEDEN

In the reign of Gustavus IV (1792-1809) Sweden joined the Third Coalition against France, thus giving Napoleon an excuse for seizing Pomerania and Stralsund, which were Sweden's last possessions on the mainland. (Ref. [106](#)) Then in 1808 a Russian army crossed the Gulf of Bothnia on the ice and eventually compelled Sweden to cede Finland. The Riksdag deposed Gustavus IV and chose the king's old uncle, Karl (Charles) XIII to rule. Some radicals, feeling that new blood was needed in the royal house, then supplied the childless Karl XIII with an adopted crown prince, one Jean-Baptiste Bernadotte, formerly one of Napoleon's marshals. As a concession from Napoleon, it was agreed that Norway should be associated with Sweden under the Bernadotte rule. We have seen above that Norway resisted this arrangement. In 1810 Bernadotte, whose wife was once Napoleon's fiancé and was a sister-in-law to Joseph Bonaparte, became Crown Prince, changing his name to Karl Johann (Charles John). Upon the old king's death in 1818 Bernadotte then became King Karl (Charles) XIV, Johann. In the interim he had had time to renounce his old emperor, join with

Russia and Prussia, lead a Swedish army back on to the continent and help in the final battles against Napoleon. Five Bernadotte kings followed, all notably able, healthy and democratic. During the century the Riksdag became a two-chamber congress, industry developed and the middle and working classes became more important.

Education, science and literature advanced rapidly in Sweden. The universities of Uppsala, Abo and Lund were among the best in Europe. Jons Jakob Berzelius was one of the founders of modern chemistry, developing a table of atomic weights far more accurate than Dalton's and isolating many chemical elements for the first time. Alfred Nobel perfected nitroglycerine and dynamite. Poets abounded, with perhaps the most famous being Esaias Tegner, who wrote the "Frithjofs Saga", a series of legends taken from an old Norse cycle of lays. By 1888 there were 21 translations into English and 19 into German. (Ref. [107](#))

DENMARK

At the close of the last century in August of 1800, Denmark had joined Russia, Prussia and Sweden in the Second League of Armed Neutrality, pledged to resist British search of neutral vessels. Fearing that the combined naval power of those nations might put an end to her mastery of the seas, Britain decided that one of those fleets had to be destroyed. Denmark's, being close at hand, was chosen and attacked in a vicious sea battle off Copenhagen and most of the Danish ships were disabled or sunk. But Denmark survived and attempted to continue neutral for another 6 years, while she rebuilt her seagoing fleet. In 1807 Britain demanded the use of the entire Danish navy to use against the French and when the Danes refused war broke out again. General Wellesley (Duke of Wellington) landed 30,000 English troops on Zealand and after bombarding Copenhagen he finally seized the naval harbor and all ships in it. This forced the angry Danish Crown Prince Frederick VII to join up with Napoleon and his country was sucked up in the European whirlpool, once again ending up on the losing side.

In the middle of the century, a number of citizens went to the king and demanded a free constitution and got it. But in both Schleswig and Holstein there were many German people who wanted German rather than Danish rule and the Danish king soon had to go to war against the Holstein rebels, with the unfortunate

result that that drew Bismarck into the scene and those provinces were soon lost to Germany (1866). We have detailed above the loss of Norway early in the century, but the old Norwegian dependencies of Greenland, Iceland, the Faroe and Virgin Islands were kept by Denmark.

Between wars the Danes made significant contributions to science, literature and art. Hans Christian Oersted (1777-1851) founded the science of electromagnetism through 38 years of experimentation. Bertel Thorwaldsen (1770-1844) was one of the two greatest sculptors of Europe of his time. After a Dane invented an improved cream separator, Denmark developed a large butter industry to go along with bacon production. (Ref. [108](#), [109](#), [110](#))

FINLAND

Finland proper now began to have a denser congregation of true Finns, displacing a sparse and probably related Lapp population. Russia took control of the land in 1809 with a sudden, surprise defeat of the Swedish forces. The Diet was abolished and there was severe oppression by the conquerors. Late in the century, however, when Czar Nicholas II wanted to blend the Finns into the Russian Empire, a struggle resulted and led to a revolution just after the turn of the century in 1905. Actually in essence this was a great national strike that has seldom been equaled anywhere. It did force some changes and a new one-chamber Diet was formed with some political advancements such as freedom of the press and universal suffrage. The Finns did not obtain their final independence until the Bolshevik Revolution in Russia in 1917.

The establishment of the modern Finnish language is credited to Johan Snellman (1806- 1881). Carl Ludwig Engel (1778-1840) was the architect of the great square of Helsinki. Jean Sibelius (1875-1957) began his symphony work as the century closed. (Ref. [111](#), [112](#))

EASTERN EUROPE

Even as today, in the 19th century most of east Europe belonged politically to Russia, although there were multiple language groups such as Finnish, Estonian, Latvian, Polish and some Swedish and German along the coast, while Great Russian, White Russian and Ukrainian were separate language groups farther east. Agricultural

yields throughout eastern Europe remained low and, in fact, had changed little from the 16th century. There was no significant rural surplus and therefore no really prosperous towns. The dread cholera, coming out of Bengal in 1826, reached south Russia, then Poland and the Baltic by 1830, before going on to Western Europe. (Ref. [113](#), [114](#), [115](#))

SOUTHERN BALTIC AREA

The southern shore of the Baltic remained throughout this period basically divided between Russia and Germany. Poland remained dispersed within the three great empires of Europe, but life went on. The world's first sugar-beet factory was built in Silesia in 1801. Some quivers of hope appeared when Napoleon marched into Warsaw at the end of 1806 and the people at first felt that he was a savior and about to free their country. The Russian troops had fallen back to their own border after several battles with the French, but Poland did not survive the Vienna Congress. Once again the Poles revolted in 1830 and declared their independence in Warsaw in 1831, but Czar Nicholas' army quickly crushed them in the battle of Ostroleka, each side suffering some 6,000 casualties. Under Nicholas' orders an internal campaign attempted to eliminate all traces of dissidence. Polish universities were suppressed and the Polish army disbanded. Prussia gave Russia moral support in these activities. (Ref. [116](#), [117](#), [118](#))

Nicholas' successor, Alexander II, at first tried some reconciliation, allowing exiles to return, the Catholic Church to function and created a new Warsaw University. But those attempts at reform did not placate the Polish people and religious ceremonies were used as political demonstrations. When an attempt was made to conscript dissident Polish youths into the Russian army, hundreds of young men fled to the forests and in January, 1863 a revolutionary committee called for an insurrection. It began with an attack on a Russian soldiers' barracks and the Poles were actually joined by White Russians and some Ukrainians who wanted agrarian reform. But the political and social diversity involved allowed General Muraviev and Field Marshal Paskenvich to put peasant against landlord and in spite of two years of guerilla warfare against the Russian army, then the largest in Europe, the Poles lost again. There followed wholesale executions, confiscations and deportations. Subsequently Poland became the most

industrialized province of the Russian Empire, producing large amounts of textiles, coal and iron. In the last third of the century, the Russian imprint on Poland became ever more evident. (Ref. [119](#))

RUSSIA

Czar Alexander I (1801-1825), although implicated in the murder of his father Paul, started rule with a true humanitarian ideology and a desire to liberate his serfs and establish a constitutional government, but the mechanics of that were difficult and blocked by his ministers and senate. Before anything could be initiated, he became entangled in European politics and diplomacy, first as an ally of France and then as an enemy. As Napoleon invaded Poland, Russia retreated but then hostilities ceased temporarily with the Treaty of Tilsit, where there was much exchange of territory and Russia gained Finland from Sweden. Of course, the Russian army in Finland had helped to promote that. Napoleon sought to keep Russia happy and thus free his hand in the west against England. But apparently changing his mind by June, 1812, Napoleon again started for Russia with 600,000 men. As we have noted in an earlier section, Bonaparte's army reached an evacuated Moscow, started to freeze and starve and finally retreated. The Russians cut them down until only 1/5 of the French army remained alive. McNeill (279) surmises that the Russian troops were supplied by barge and river boats in summer and sleighs in winter, allowing great weights to be moved easily and relatively rapidly, in contrast to the French land carts. It has been estimated that there were about 400,000 *burlake*, or hauliers, who pulled or propelled boats along the Volga in about 1815. (Ref. [120](#)) Czar Alexander I followed his troops into central Europe and then Paris, as Napoleon abdicated. The czar was then influential in the final peace at Vienna and the subsequent formation of the Holy Alliance of European monarchs.

Under Czar Nicholas I (1825-55) Russia aggressively added Persian Armenia to its empire and tried to take over the Balkans, but was thwarted there by the British. The great Russian army was used during Nicholas' reign on many diverse fronts; in central Asia (1839-43 and 1847-53); in the Caucasus (1829-64); against Persia and Turkey (1826-29); against Polish rebels 1830-31 and 1863); and against Magyar revolts in 1849. It is of interest that as early as the 1830s the astute Alexis de Tocqueville (Ref. [121](#)) recognized

that even then the two greatest nations in the world were Russia and the United States, although the former centered all the authority of society in a single arm while the latter relied on the strength and common sense of the people. The population of Russia increased proportionately more rapidly in the early century than any other country in the world.

Britain felt that Turkey must be kept independent of Russia and in 1841 an International Straits Convention closed the Bosphorus to Russian warships. In spite of that, in 1851 Russians invaded Turkey's Danubian provinces and in 1853 sank the Turkish fleet, gaining control of the Black Sea. In reprisal, France and Britain declared war on Russia in 1854 and invaded the Crimea. In this Crimean War the greatest battle took place at Sevastopol, where Russia sank her antiquated navy to block the bay, putting the ships' guns on the shore. But the western powers finally took the great naval base, anyway, humiliating Russia. Long supply lines¹⁴, poor administration, and obsolete ammunition, along with typhus fever and other diseases contributed to the eventual fall of the Russians, although the strategy of the British had also been appalling. This war ended the dominant role of Russia in southeast Europe. The scandalous condition of the troops and the dead, sick and wounded of both sides, as depicted by the first war correspondents, led to the work of Florence Nightingale and this was perhaps the most positive result of the war. (Ref. [122](#)) The Peace of Paris of 1856 let Sevastopol stay in Russian hands, but the mouth of the Danube became international and Russia was barred from having a Black Sea navy. The treaty was a futile effort to settle the "Near Eastern Question". During the same period, Russia attempted periodically to take the Caucasus and was opposed with great fanaticism by the Islamic leader Shamil. Nevertheless, that area was under complete Russian control by 1864.

Some of the reforms which had been attempted by Czar Alexander I were actually accomplished by Alexander II as he emancipated the serfs and established councils for local self-government in the years after 1855. He refused a national constitution, however, and retained absolute rule, so that while the serfs were freed from the authority of the gentry, that authority was simply transferred to the local commune or "mir", which in turn distributed the land and levied taxes. The Act of Emancipation also divided the nation into two great classes: (1) gentry and urban classes, and (2) peasantry.

In 1864 there was decreed a Local Government Law or "Zemstvo" under which each province and each country was authorized to elect its own assembly. This promoted better education and public health and through other provisions there was established trial by jury with an ordinary system of defense and prosecution. Still, many revolutionary ideas developed in many groups and many sectors in the 1860s and between then and the end of the century over 500,000 people emigrated to Siberia. The Nenets, living along the tree-line and north of the Arctic circle were under the czar's jurisdiction and in 1870 he moved many of them to Novaya Zemlya to end Norway's claim to that island. (Ref. [124](#)) Anti-semitism was stronger in Russia than in Germany. Baltic Germans were responsible for much of this in the Nazi party of the 20th century. (Ref. [125](#))

Chernyshevsky preached materialism and intellectualism, stating that man's creative thinking was superior to any spiritual power from above. He was also a socialist. Pisarev wrote about nihilism, with an intellectual attitude of extreme individualism. Karakozov promoted the philosophy of terror and prophesised that all of Europe, including Russia, would soon be in the flames of revolution. He was executed in 1866. Nechaev formed a society called "The Peoples' Justice" and sowed the seeds of anarchism. In P. Tkachev one finds the forerunner of Bolshevism with such statements as: "The Russian Revolution, like any other revolution cannot escape hanging and shooting gendarmes, public prosecutors, ministers, merchants and priests."[15](#) He said that the goal was a new social order and that in the original state the revolution might assume the form of a dictatorship of a minority, but representing in essence the will of the people. Plekhanov founded the Land Freedom Party, later split into the Populists and the Terrorists.

In 1877 Russia again tried to intervene in the Balkan revolutions, but once more backed down as the great powers of Western Europe complained and in the resulting Congress of Berlin of 1878 all non-independent areas in the Balkans were given either to Austria or back to Turkey. After an attempt on the life of Czar Alexander II in 1880, Loris Melikov was appointed virtual dictator to combat revolution and develop means of stopping revolts. A type of constitution was devised, but before it became effective Alexander was killed by a terrorist bomb.

Alexander III began his reign as czar in 1881 and died in 1894,

but lived long enough to resume some diplomatic relations with Europe, while economic and social problems increased at home. Matters were not helped by a famine in 1891. Nevertheless, there was continued relentless expansion into central Asia, with the British becoming alarmed regarding their claims in India. A great industrial region developed where the Don River empties into the Sea of Azov around the Donetsk coalfield. A railroad connecting that area to the iron-ore fields of Donets to the west helped industrialization. As in the United States, the railroads were fundamental in creating a modern nation. (Ref. [127](#))

After 1870 the steel industry grew 500 times faster than in any other country. Swedish entrepreneurs found oil near the Caspian Sea about 1860 and by 1900 some 10 million tons of oil a year were produced, about half of that of the world. Although carried out by foreigners, such industrialization was inspired by the state. Marx, who knew little about Russia, did not realize that the chief political problem was one of nationalities. Russia, in 1900, had 120,000,000 people dominated by 56,000,000 Great Russians, with 22,000,000 Ukrainians and then varying numbers of White Russians, Poles, Jews, Tartars, Lithuanians, Letts, Germans, Armenians, Estonians, Finns, Bashkirs, Georgians and Circassians. (Ref. [128](#))

Russian literature was dominated by Alexander Pushkin and Fedor Dostoevsky, who anticipated much of the 20th century. Russian scientists excelled in many fields. In mathematics Lobachevsky developed a non-Euclidean geometry and Sophia Kovalevskaya did much work with calculus, although she was foreign educated and did much of her work in Sweden. In biology I.I. Mechnikov was a co-worker of Pasteur and Kovalevsky founded comparative embryology and experimental histology. In chemistry D.I. Mendeleev became world famous for his Periodic Table of the Elements. Physiologists included the well known Ivan Pavlov, who worked with digestive glands and conditioned reflexes and Timiryazev, who found the role and significance of chlorophyll. A.S. Popov was a pioneer in electromagnetic waves and predicted the development of radio. Tsiolkovsky, who was the father of jet-propulsion and cosmic rocketry did his work at the end of this century, although it was not published until early in the 20th. After 1864 local governmental organizations, the "Zemstvos" were responsible for medical service to the poor and mentally ill, acting

through the "feldshav", a combined male nurse and pharmacist. Regular physicians were trained in the large universities. (Ref. [129](#), [130](#), [131](#), [132](#)).

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1. The French stopped compulsory military small-pox vaccination after the Napoleonic Wars, but the Prussians continued. Thus, small-pox put 20,000 French soldiers out of action in the Franco-Prussian War, while the Germans went unscathed. (Ref. 23)
2. This comment was taken from the German historian, Reinhart (Ref. 30, but according to the Austrian historian, Rickett (Ref. 31), the true glory of Austria was yet to unfold, as we shall see
3. The Prussians, who are genetically about half Slavic, registered as a Slav Monarchy. (Ref. 32)
4. Quotation from Rickett (Ref. 34), page 93
5. At the time of his birth this baby, Napoleon II, was declared King of Rome, but he never ruled anyplace
6. See page 1083 for the British resurgence
7. Quotation from Durant (Ref. 56), page 730
8. The evidence is basically that arsenic has been identified from hair which was allegedly that of Napoleon (Ref. 59)
9. This ended the cotton industry for France. (Ref. 64)
10. This War of 1812 will be discussed in a little more detail in the section on THE UNITED STATES
11. A Patent Office in Great Britain issued 600 patents between 1850 and 1860 pertaining to firearms. (Ref. 86), page 237n
12. Altogether Armstrong built 84 warships for 12 different foreign governments 1884-1914. (Ref. 88)
13. Cheyne-Stokes syndrome is a well known respiratory arrhythmia

14. About 125,000 peasant carts were requisitioned but forage was almost non-existent for the draft animals and the ultimate payloads for the army were far from adequate. (Ref. [123](#))
15. As quoted by Mazour (Ref. [126](#)), page 285

The Indian Subcontinent

Geographical Presentation of The Indian Subcontinent

All parts of traditional India will be included under this heading and this means that present day Pakistan, Nepal, Bangladesh, Bhutan and Sri Lanka will be involved. Please note that this area is approximately the same size as the Near East and much of it lies at the same latitude. The Indus River valley, site of one of the world's earliest civilizations, is now in Pakistan, while the second great Indian River, the Ganges, terminates, in part, in Bangladesh. As we shall emphasize in the text, this subcontinent contains an almost unbelievable mixture of peoples, languages, customs and religions.



Map 1.1: Indian Subcontinent This map was obtained from <http://english.freemap.jp/index.html> and is used with permission under a Creative Commons Attribution 3.0 license.)

The Indian Subcontinent: Beginning to 8,000 B.C.

THE INDIAN SUBCONTINENT

The Indian subcontinent has produced almost no fossil men with the exception of *Ramapithecus* from the Siwalik beds and a similar jaw from Gandakas in Pakistan. These have just recently been put into the human "line". But men have lived in India since the second interglacial period, from 400,000 to 200,000 B.C. The hand-axes, chopping tools and flakes of the early Stone Age are found in the Punjab foothills, the Soan and Beas valleys, Rajasthan, Malwa and as far south as Madras. Some of these are reminiscent of the Clactonian of Europe and the Olduvan of Africa. At the close of the Paleolithic, tiny bladelet tools like those of the European Mesolithic Age were being used. From then until about 10,000 B.C. there was a mixture of archaic and gradually more modern societies, of ten side by side.

After 10,000 B.C., except for the high mountains, India was covered by woodland and the modern barren landscape is man-made, due to millennia of woodland clearance for various reasons. (Ref. 1, 2, 3, 4) (Continue on page 36)

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The Indian Subcontinent: 8000 to 5000 B.C.

THE INDIAN SUBCONTINENT

Middle Stone Age sites with their delicate flake-shaped tools occurred mainly in India in the central and peninsular areas, but also in the Soan Valley and at Sanghao in northeast India. Microliths and Mesoliths of the Late Stone Age are distributed almost throughout the subcontinent, except in Pakistan. Interestingly enough, scattered in remote areas throughout there are still today about twenty million aboriginal peoples such as the Gonds, Bondos, Kani, Todas and Magas, of uncertain racial ancestry. A few seem to be related to the Australoids of Australia. Pollen analysis suggests forest clearance and cereal culture in Rajasthan as early as the 8th millennium B.C. (Ref. [1](#), [2](#), [3](#)) (Continue on page 54)

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The Indian Subcontinent: 5000 to 3000 B.C.

THE INDIAN SUBCONTINENT

Peoples of the Indus Valley raised wheat, barley, peas, sesame seeds, mangoes, dates and citrus fruits on irrigated fields by 4,000 B.C. They used asses, horses, buffalo, camels and cattle both for meat and draft animals (Ref. [1](#)) Woven cotton fabric was in the same valley by 3,000 B.C. Major sites have been unearthed in western India and Pakistan of the ethnic group called "Brachycephals", who were widely scattered throughout Sind, Baluchistan and Rajasthan, with elaborate settlements, using copper and bronze by 3900 B.C. Neolithic sites of cattle raising people living in villages of wattle and daub or mud huts have been excavated in the Ganges Valley and the southern peninsula, dating to the 4th millennium B.C. (Ref. [2](#)) (Continue on page 89)

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The Indian Subcontinent: 3000 to 1500 B.C.

THE INDIAN SUBCONTINENT

In addition to the Brachycephals discussed in the last chapter, other ethnic groups were well established by the 3rd millennium B.C. Negritos, Proto-Australoids and a Mediterranean people now mainly associated with the Dravidian Culture and finally the Mongoloids of the northeast and northern fringes, were all present. The latter were serpent worshipping Nagas, while the Dravidians were adventurous sailing merchants with cities of refinement and luxuries. Today the Deccan, in southern India, is essentially Dravidian in stock, customs and language.

The Brachycephal¹ development came to flower in the Indus Valley cities of Harappa and Mohenjo-daro (now all in Pakistan) with a civilization which survived for almost a thousand years (2,550 to 1,550 B.C.) with excellent houses, elaborate drainage systems, bathrooms, etc. - all equal to Sumerian accomplishments and probably superior to Babylonian and Egyptian cultures. At its height this society extended far beyond the Indus Valley, itself, (see map on next page) and covered an area far greater than the contemporary states of Mesopotamia or the Kingdom of Egypt. Of this, only high citadels, solid buildings, uniform grids of streets and the elaborate drainage system remain. It was a society of priests, merchants and peasant farmers with extensive sea trade with Sumer and Babylonia. There was local script writing by 2,400 B.C. but unfortunately it has not yet been convincingly deciphered. No one knows even the language family to which it belongs, although there are thousands of short examples on stone seals, metal objects and pottery. This civilized area not only extended all along the Indus and its tributaries but ran for five hundred miles along the coast of

the Arabian Sea, and French archeologists have also discovered remains of a mature Harappan settlement up in northeastern Afghanistan close to the Russian border, a thousand miles northeast of the Indus mouth. The Harappans domesticated the Indian jungle fowl, later to become the world's "chicken". The women apparently all wore at least loin cloths, but the men are often shown naked, in the discovered figurines. (Ref. [1](#), [2](#), [3](#), [4](#), [5](#))

The disappearance of this as a living civilization has been traditionally blamed on the destruction wrought by the Aryan invaders from Bactria and northern Iran who descended into this area between 1,600 and 1,500 B.C.. Although they came primarily as immigrants to find pasture land for their cattle, they were also strong fighters when combat was necessary, and gradually all Hindustan (the land north of the Narbada River) was under control of these people, now called "Vedics". They prohibited intermarriage with native groups and thus initiated the Caste System in India. Their Aryan tongue was ancestral to Sanskrit and Sanskrit was a well differentiated language by 2,000 B.C.. They had a sophisticated theology and well organized priesthood, both indicating influences of Sumerian and Babylonian religious ideas. Some authorities put the collapse of the Harappan civilization somewhat earlier, between 1,800 and 1,700 B.C. and mention that the streets of Mohenjo-daro when first excavated were lined with corpses. If the invading Aryans were not responsible, other possibilities included a change in the course of the Indus, or a terrible drought. It is of interest that many Indus settlements were in areas where today there is nothing but dry sand and agriculture would be impossible. Apparently in those ancient days rainfall and river water had been more plentiful and this has been confirmed by archeological pollen counts, These pollens, which were in great numbers in the lowermost layers later dropped in the upper layers of excavation and were then chiefly of desert plants, indicating an obvious drought. One theory of the cause of this has been put forward by Reid Bryson of the University of Wisconsin, who feels that with increasing population of the Indus civilization the forests were destroyed for fuel and timbers, and the resulting deforestation accelerated the run-off of rain, decreasing soil moisture and lowering the fertility from erosion and top-soil loss. Then with overgrazing, a man-made desert appeared, with rising dust which, in turn, clouded and cooled the upper atmosphere, with the resulting heavier, cool air sinking downward

and preventing rain. Thus it is possible that the Indus people, pushing their environment to the limit, caused their own downfall and near extinction. In any event, life did continue in the valley but without the highly organized culture previously known. (Ref. 7, 8, 9, 10, 11)

Image not Finished

Map xx Indus Civilization

By 2,000 B.C. Pan chewing was a well established practice in India. Pan is the Betel nut, and like cocaine it is part narcotic and part stimulant. We have mentioned that the Aryans brought live stock with them, particularly cattle. They ate beef, mutton, milk, and curds and used the cooking medium "ghi", a clarified butter, which can be kept for months. They introduced this heavy dependence on dairy products, reinforced by precepts from the Vedas, which led slowly to a belief in the sacredness of the cow, a precept still existing today. (Ref. 12)

Very recent excavations at Balakot on the Arabian Sea coast of southern Pakistan indicate the possibility of a civilization even earlier than the Harappan, with well developed ceramics and the use of copper. In the far south in Sri Lanka, the first inhabitants were the Veddas, who emerged there about 3,000 B.C. Only a few of the descendents of these aborigines still live in the mountainous area. (Ref. 13, 14)

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

3

[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

4

[44] DALES, GEORGE F., "Strange Relics of the Crumbling, Still-puzzling Indus Culture", Smithsonian 89:56-65, July, 1977.

5

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

6

[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

7

[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

8

[68] GARRATY, JOHN A. AND GAY, PETER, (Editors), The Columbia History of the World. (Harper & Row, New York, 1972).

9

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

10

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

11

[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

12

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

13

[44] DALES, GEORGE F., "Strange Relics of the Crumbling, Still-puzzling Indus Culture", Smithsonian 89:56-65, July, 1977.

14

[38] COLUMBIA ENCYCLOPEDIA, 3rd Edition. (Columbia University Press, New York and London, 1963).

1. There is some evidence to suggest that the Brachycephals were themselves Dravidians. (Ref. 6)

The Indian Subcontinent: 1500 to 1000 B.C.

THE INDIAN SUBCONTINENT

Between about 1,500 and 1,200 B.C. there were successive waves of Aryan charioteers and bowmen moving south from eastern Iran to the Indus Valley. By 1,050 these Rig-Vedic Aryans, with their vigorous, objective and warlike attitude toward life, had extended their domain from the Swat Valley of Afghanistan to the land of the "Seven Induses", and then they moved eastward toward the Ganges. In the Rig-Veda, or first period of the Aryans, goat, horse, sheep and buffalo could be eaten but only barren cows, but by 1,000 B.C. the Atharva-Veda forbade eating even barren cows. The Vedic civilization accumulated a great literature transmitted verbally in the Sanskrit language as the "Vedas" (Books of Knowledge). These were later written down, but probably after 1,000 B.C. Hinduism¹ developed from the ancient Sanskrit chants with the concept of Brahman, the Supreme Being, ruling over man and all of a multitude of deities, many of them animistic. The soul of each man (Atman) through many incarnations eventually wins liberation from worldly existence to achieve union with Brahman. Below the level of Brahman in the Hindu pantheon is the trinity of Brahma the creator, Vishnu the preserver and Shiva the destroyer. Brahma is held too sacred for popular rites, but Vishnu and Shiva are worshiped in hundreds of guises and forms and customs. Vishnu has ten chief avatars or forms in which he descends to earth, including Rama of the Ramayana legend, Krishna, hero of the Mahabharata epic, and Buddha, of historical significance. (Ref. [1](#), [2](#), [3](#))

Although ancient Indian society was divided into colors or "varnas", later the last term stood for a grouping according to vocation: Brahmins as priests and scholars; Kshatriyas as rulers and soldiers;

Vaishyas, the merchants and farmers; Sudras, the peasants and serfs. All of this developed into the hereditary caste system with eventual emergence of some 3,000 sub-castes. As early as 1,000 B.C. steel was made in India, by melting iron at 1,500 degrees Centigrade and adding less than one percent carbon. (For contrast, copper melts at 500 degrees). Agriculture, as in ancient Iraq and China, depended on irrigation, and this was the most time consuming part of the farmers' work. (Ref. 4, 5, 6) (Continue on page 146)

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

3

[25] CHAKRAVARTY, AMIYA, "Hinduism". Great Religions of the World, (National Geographic Society, 1978 Edition).

4

[25] CHAKRAVARTY, AMIYA, "Hinduism". Great Religions of the World, (National Geographic Society, 1978 Edition).

5

[21] BRONOWSKI, J., The Ascent of Man. (Little, Brown & Co. Boston, Toronto, 1973).

6

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

1. The name "Hinduism" is derived from the name of the Indus River

The Indian Subcontinent: 1000 to 700 B.C.

THE INDIAN SUBCONTINENT

In the last chapter we discussed the southern and eastern expansion of the invading Aryans. Their migration soon became sharply limited because the "forest people" they encountered had endemic tropical and parasitical infestations flourishing in the moist, warm climate which meant death and destruction to the invaders. The aboriginal forest people were only gradually incorporated in special castes, thru in effect isolating them from the conquerors, and this was another element in the development of the caste system. It was only after some adaptation to disease and the advent of iron, in about 800 B.C., that the Aryan Vedics began to actually clear the forest of northern India preparatory for farming and large scale agriculture. (Ref. 1, 2)

In the south, tiny communities developed in the fragmented land, each with its own religious, political and economic life. Distinctive megalithic cultures grew up around Madras, Kerala and Mysore. Sea-faring peoples at the tip of the peninsula traded by sea with the Middle East, shipping ivory, spices and the cotton plants to Mesopotamia. It is of considerable interest that doimons, very similar to those of Europe's second and third millennia B.C., have been found throughout India, but none seem to date before the 8th century B.C. and some much later. (Ref. 3, 4, 5)

The organization and writing of the Vedas rituals began about 1,000 B.C. and probably continued for 500 years. The writing of the Upanishads began about 800 B.C. and continued for about 300 years. The latter consisted of 108 discourses by various teachers, saints and sages with the resulting opinions and philosophies of many men. The belief in transmigration appeared there. According

to Toynbee's theories (Ref. 6) this is the height of the original Vedic Society. Of incidental note is the legend in Sri Lanka that King Solomon sent emissaries to the fabled city of Gems, Ratnapura, to get precious stones with which to woo the Queen of Sheba. (Ref. 7)

1

[140] MCNEILL, WILLIAM H., *Plagues and Peoples*. (Anchor Press/Doubleday, Garden City, New York 1977).

2

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

3

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

4

[136] MCEVEDY, COLIN, *The Penguin Atlas of Ancient History*. (Fletcher & Son Ltd., Norwich, England 1967).

5

[215] THORDNDIKE, JOSEPH J., JR., (Editor). *Mysteries of the Past*. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

6

[220] TOYNBEE, ARNOLD J., *A Study of History*. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

7

[108] JORDON, ROBERT PAUL. "Sri Lanka", *National Geographic* 155: 123, Jan. 1979.

The Indian Subcontinent: 700 to 601 B.C.

THE INDIAN SUBCONTINENT

The Vedic Culture continued in Pakistan and northern India, but there was now a shift of emphasis from the region of the Indus to the Ganges River plains, where previously existing villages now became true city-states. The jungles of the Ganges area could not be cleared until iron axes and plows were available. That new metal - iron - also changed warfare to regulation infantry and cavalry. Farther south, Kosala and Magadha kingdoms were built by marcher lords of that area. (Ref. 1, 2) (Continue on page 185)

1

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

2

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

The Indian Subcontinent: 600 to 501 B.C.

THE INDIAN SUBCONTINENT

The Vedic Culture began to decay or at least to stagnate, so that Darius I of Persia had little trouble in seizing Gandhara from the disunited Aryans, and the entire area soon became divided into many small states. Darius' advance into the Indus Valley marked the introduction of coinage, iron working¹ and writing into Pakistan. Although powerful and extensive kingdoms developed in the Ganges Valley at that time, they always remained unstable and were never consolidated into an enduring whole, as in China, and one reason was the heavy micro-parasitism characteristic of the warm, wet Ganges climate. This heavy infestation and infection must have reduced individual vigor and capacity for physical labor, and is probably one reason that Indian empires were fragile and subject to easy conquest by invaders from the north, until the invaders themselves became infested. The transcendentalism that became characteristic of the Indian religions accorded well with the circumstances of poverty-stricken, disease ridden peasants. In Toynbee's (Ref. 1) terminology, it was a "time of troubles" and as usual in such situations, new philosophies and religions began to appear to save man or lift him out of the drudgery of his life. By this time, the caste system was well established at least in northern India. Benares, at the gentle four mile curve of the Ganges, was already the goal of thousands of Hindus who went there to bathe and drink its water and to beseech the favor of some god. (Ref. 2, 3, 4, 5)

Gautama Buddha, scion of the aristocratic Gautama clan living at the foot of the Himalayas, was born in 563 B.C. He left his family and after an initial withdrawal period with self mortification, he

returned to the active world to teach his ideas of ethics. He did not write, but talked, a man of strong will, authoritative and proud, but of gentle manner and speech and of infinite benevolence. His idea of Nirvana was complete annihilation. Later, a legend of divine birth appeared among Buddha's followers, but he, himself, claimed no divine origin and in fact was in essence an atheist, worshiping no god, having no ritual and interested only in ethics.

In the middle of this century there also appeared another religion founded by Mahavira and called "Jains". Mahavira taught that the road to release from the tragedy of life was to be found through ascetic penances and complete "ahimsa". The latter means abstinence from injury to any living thing. Gandhi was later strongly influenced by this sect. Neither Buddhism nor Jainism accepted the caste system, which was Hindu in origin, and both were opposed to violence and to any animal slaughter. The Jains even had to be careful in eating any fruit or vegetable, as it might contain an insect which might be a human soul in re-incarnation. Finally, the only animal protein food in India was an occasional chicken or, on the coast, fish and seafood.

Aryan invaders from north India arrived in Sri Lanka in this or the preceding century and the present day majority Sinhalese (seven out of ten Sri Lankans) claim descent from them. They are Buddhists and theirs is the official language of the island. (Ref. 7, 8)
(Continue on page 207)

1

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

2

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

3

[140] MCNEILL, WILLIAM H., Plagues and Peoples. (Anchor Press/Doubleday, Garden City, New York 1977).

4

[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, Freedom at Midnight. (Simon & Schuster, New York, 1975).

5

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in

two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

6

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

7

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

8

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

1. Some believe there was iron smelting in India as early as 800 B.C. (Ref. 6, page 271)

The Indian Subcontinent: 500 to 401 B.C.

THE INDIAN SUBCONTINENT (THE THIRD GREAT CENTER OF CIVILIZATION)

This was a continued time of troubles in India, with political deterioration. While previously there had been some sixteen great realms along the rich Gangetic plain, the number was now gradually reduced to four - the three kingdoms of Kasi, Kosala and Magadha and the Republic of Vriji. Nevertheless, some of the arts and sciences flourished in this valley. Most of the Indus Valley remained under Persian control. (Ref. 1)

The direction of growth of India and some of its limiting factors had been pretty well determined in this century in which Buddha died. By the end of the century Buddhism had already faded in this land of its birth and the major outlines of the religious world-view which was to govern all future Indian history had emerged, although not yet organized in its present day form. (Ref. 2)

1

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

2

[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

The Indian Subcontinent: 400 to 301 B.C.

THE INDIAN SUBCONTINENT

After a century of wars, the kingdom of Magadha absorbed the other three great realms of Gangetic India and established a capital at Pataliputra (Batna) on the lower Ganges. In 327 B.C. Alexander reached India, taking about one-half of the country and making King Porus a puppet ruler over the most northern portion. Only seven years later, however, Chandragupta Maurya overcame the Macedonian garrisons and annexed all land east of the Indus and south to the Narmada River. In 303 B.C. he defeated Alexander's successor, Seleucus Nicator, and obtained the Greek province of Trans-Indus which included a large part of Afghanistan. This Mauryan government then became the most powerful then existing in the world, with a civilization at least equal to that of the Greeks. Taxila was a city of great universities; there were no slaves. Cotton clothing, made from a Burmese import, was widely worn, although India soon developed its own cotton supply. Government administration was controlled by the vizier, Kautilya, a Brahman who knew the political value of religion but took no moral guidance from it. This became an autocracy which Toynbee recognizes as the "universal state" of the original Vedic Society. This is thought to be the time of Panini's Sanscrit Grammar, which codified the rules for "classical" Sanscrit, as derived from the Vedas. (Ref. [1](#), [2](#), [3](#))

The ancient city of Anuradhapura was built in Sri Lanka in this century and it lasted until the 11th century of the Christian Era. It was located in the lowlands northwest of Polonnaruwa and was supplied by a water system which is still in use today, although the city itself is buried. There are multiple lake reservoirs and bell-shaped housing relics of the Buddha, some as high as forty stories.

(Ref. 4)

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

3

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

4

[108] JORDON, ROBERT PAUL. "Sri Lanka", National Geographic 155: 123, Jan. 1979.

The Indian Subcontinent: 300 to 201 B.C.

THE INDIAN SUBCONTINENT

Ashoka Vardhana (also Asoka), grandson of Chandragupta, came to the throne in 273 B.C., monarch of Afghanistan, Baluchistan and all of modern India except Tamil Land in the extreme south. At first he ruled well, although cruelly. In midlife he became intensely interested in Buddhism, changed his ways, joined a Buddhist order and became an ardent missionary and zealous administrator. He was hated by the Brahmins, the priestly class of the old religion, and in spite of Ashoka's Buddhism it was in this century that Hinduism finally evolved with a new generation of gods; Shiva, Vishnu, Rama and Brahma. (Ref. 1)

On the "Rock Edicts of Ashoka" appear "Arabic" numerals - a thousand years before they appear in Arabic literature. These numerals are one of our great heritages from India. Among inscriptions of this century are statements that hospitals had been established for humans and for animals, although it is not clear if these were the first. Elaborate dispensaries and special maternal and operating facilities were also described. (Ref. 2) Most artisans of the Maurya Empire worked in guilds which eventually developed many features similar to trade unions. (Ref. 3) After Ashoka's death, the empire was split into a number of parts.

1

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

2

[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D.,

Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York 1978).

3

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

The Indian Subcontinent: 200 to 101 B.C.

THE INDIAN SUBCONTINENT

The Iranian Yue-chi (Tocharians), run out of central Asia by the Hsuing-nu, ended up south of the Pamirs, in northern Pakistan. (Ref. 1) The great Maurya Dynasty ended with the death of King Brihadratha in 185 B.C. and the history of the next five centuries has been pretty well lost in obscurity. It is known that the Maurya were at least partially overthrown by the Pushyamitra from the Ganges Valley and that they then established the Sunga Dynasty. This was a Brahmin dominated group which caused the Buddhists to retreat to other areas where there was soon a flowering of Buddhist sculpture. Some Greeks, Syrians and Scythians conquered the Punjab and established a Greco-Bactrian Culture under Demetrius, the Greek Bactrian king, and it existed for some 300 years. The Deccan in the south became separated from the rest of India with the formation of the Tamil states. These people were Dravidians, a dark-skinned race which some believe to be a mixture from Mediterranean, Australoid and Melanesian origins.

1

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

The Indian Subcontinent: 100 B.C. to 0

THE FAR EAST

CHINA AND MANCHURIA ("Former" Han Dynasty continued)

At its peak the Han Empire under Wu-Ti was exceedingly prosperous, rivaling Rome both in size and wealth. The capital city Ch'ang-an had 250,000 in a total empire population of about 57,000,000. While the progress of mechanization was impeded in Greece and Rome by the number of available slaves, China had too many efficient coolies. (Ref. 1) We noted above that Wu-Ti expanded into the Tarim Basin in the west by defeating the Hsiung-nu and this pursuance continued even after Wu-Ti's death. In 51 B.C. the chieftain of the southern Huns came to Ch'ang-an to submit as an Han vassal, while the northern group continued to be chased far westward into Samarkand, there to be finally defeated by a five-pronged Han force in 36 B.C. But in China proper the economic controls lapsed and nepotism and cronyism resulted in the loss of the imperial family's power.

A type of national university had come into existence to prepare men for bureaucratic careers and by the end of the century the enrollment had reached 3,000. In the Han militia system all males registered for military service at 21 years of age and were eligible for service between the ages of 23 and 56 years. Allegedly every male was to have military service in his home county one month every year and one year of continuous service sometime in a guard unit, but soon a practice of paying poorer men to serve one's time became standard practice. In addition to using cowrie shells as currency, copper coins, later called *sapekes* by the Europeans, came

into use. Both of these competed with salt and grain as a medium of exchange. (Ref. 2) In this century the Chinese drilled deep holes, presumably for water, in Szechwan and their drilling methods were copied centuries later in the United States. (Ref. 3)

In early China the laws required punishments and torture that equaled that seen in Europe at a much later period. Death penalties were carried out by beheading or by chop- ping the offender in two at the waist. In cases of treason or some equally serious crime, all the offender's relatives might also be put to death. Lesser offenders might simply be mutilated by tattooing, amputation of nose or feet or castration. Imprisonment was rare, but hard labor on government construction was used for minor offenders. In Emperor Ch'eng's reign (32 - 7 B.C.) authority was delegated to his mother's family, the Wang clan. Ssu-me Ch'ien was a great Chinese historian of this era. (Ref. 4, 5)

In Manchuria a new state of Koguryo was founded in this century and soon also included northern Korea.

JAPAN

The Yayoishiki Culture continued into this century with rice culture appearing about 100 B.C. Animism and totemism, sex and ancestor worship satisfied the religious needs of these early Japanese. Out of the latter worship came the oldest official living religions of the nation - Shinto. This faith, called the Way of the Gods, took three forms; the domestic cult of family ancestors, the communal cult of clan ancestors and the state cult of the imperial line with its founding gods.

A Mongolian castaway group on Kyushu multiplied so rapidly as farmers that they took over all the arable land on the island and while some of the aborigines became serfs, others took to the hills from where they continued to raid the farmers for centuries. The new Kyushu community was organized as a loose confederacy of villages, each ruled by its own matriarch or fertility mother, and the woman leader of the most powerful town was called the "Sun Goddess". Early Chinese traders called her "Pime-ko", or "Hime-Ko", meaning "Sunshine Child". (Ref. 6, 7, 8) In an attempt to obtain more sea-food to feed the expanding population, a great ship-building effort was made in 81 B.C. (Ref. 9)

KOREA

Most of Korea was controlled by the Han Chinese at this time, but the northern portion was allied with Manchuria in the new state of Koguryo.

SOUTHEAST ASIA

Already controlling North Vietnam, the Chinese now added central Viet Nam to their territory which they were to maintain for centuries. No other significant changes occurred.

1

[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

2

[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

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[12] BERGAMINI, DAVID, Japan's Imperial Conspiracy" (Wm. Morrow & Co., Inc., N.Y., 1971).

9

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

The Indian Subcontinent: 0 to A.D. 100

THE INDIAN SUBCONTINENT

In the first half of the century for a brief period the great trading city of Taxila in north India (now Pakistan) was controlled by Indo-Parthians, and the surrounding Saka area had predominantly a Greek culture in spite of the Iranian genealogy. All this ended about A.D. 60 as the Tocharians and the mighty Kushan tribes took over this area. The Kushans reached Benares (150 miles west of Patna) destroying the Sakas as they went. In the far east, a Buddhist civilization flourishing in Bengal was forced to abandon that faith by a Hindu dynasty which subsequently oppressed the native people. (Ref. [1](#), [2](#), [3](#))

The Deccan of India was ruled by the Buddhist Satavahana Dynasty while the Munda kings continued to control southern India. The southern coast now assumed new importance because of the sea links between China, India and the Mediterranean world. Pliny complained that India's spices, jewels, muslins and exotic animals were costing Romans 550 million sesterces a year. Also shipped out were turquoise, diamonds, spikenard, indigo, silk yarn and tortoiseshell, while imports were wine, pearls, copper, dates, gold and slaves from Ethiopia, Arabia and the Mediterranean.

Christianity may have reached India even this early in that the apostle Thomas is supposed to have founded the Syrian Church in Malabar before being killed in A.D. 68. This is usually given as the time of Charaka, the great Indian physician who composed an encyclopedia of medicine still used in that country, but he may have lived much earlier. He listed 500 medicinal plants and developed a rather unsystematic catalogue of diseases and cures. His description of what constituted a good hospital would do credit

to any today. The Prakrit language became the chief medium of the Buddhists and Jains and Sanskrit faded except in the professional writing of the Brahmins. (Ref. 4, 5, 6, 7)

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

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[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, Freedom at Midnight. (Simon & Schuster, New York, 1975).

4

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

5

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

6

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D., Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York 1978).

The Indian Subcontinent: 101 A.D. to 200

THE INDIAN SUBCONTINENT

Under their greatest king, Kanishka (ca. 120 - 160), the arts and sciences flourished among the Kushans. After experimenting with many religions, the king finally chose the new mystical Buddhism and called a great council of Buddhist theologians to formulate this creed for his realm. The council lowered Buddha's philosophy to the emotional needs of the common soul but raised Buddha to a divinity, thus laying the basis for the Mahayana or Greater Vehicle Buddhism which later helped to win China and Japan. It is a variation of Buddhism which shows definite influence from the Greek religions. The Kushan rule extended from Benares and Kabul to the Vindhya, with a capital at Peshawar.

Some further discussion of the confusions which surround the history of the Kushans seems relevant. It has been mentioned previously that they were a mixture of Yu~e-chi tribes (some say five tribes), but the Chinese name is misleading in that they spoke a variety of Iranian languages. Wells wrote that the Yue-chi had originally been pushed over into western Turkistan by Hun peoples who conquered the Bactrians and then mixed with Aryan elements there to create the fusion known as Indo-Scythians who then went over the Kyber Pass down into India. This is not the current concept which is that the Kushans were entirely Indo-European. After the middle of the century, foreign kingdoms in the north began to fade and indigenous Indian groups emerged. (Ref. 1, 2)

Buddhism now became divided into two schools, the mystical Mahayana, or Greater Vehicle, mentioned above, and the Hinayana or Lesser Vehicle, also called Theravada Buddhism or Way of the Elders, which retained much of the primitive simplicity of the

original philosophy. The particular branch of this religion dominant in Kashmir, the Sarvastivadin, was one of two main off-shoots of the Hinayana but Hindu faiths existed at the same time, with Siva as the most favored deity. Kanishka established a city in his own name in Kashmir in this century. Throughout all these early centuries of the Christian era, the region of Kashmir was subject to incursions of Sakas, Kushans, Tibetans and Huns from the north as well as migrations of Gujaras from the south. Kashmir kept contact with Gandhara in present day Pakistan and shared some of the artistic blending of Hellenic and Parthian influences. (Ref. 3, 4)

The Deccan was still dominated by the Munda kings. In Malwa there was a dynasty of Satraps of Ujjain, a community which became a center of Sanskrit learning and was taken as the basic meridian by Indian astronomers. In the far south of India it was Hinduism which flourished. Sanskrit influence is clear in the Tamil language grammar although not much else of Aryan India penetrated Tamil. The basic devotion was to the Hindu gods of Vishnu and Siva. Indian art was influenced by Greek sculpture and their science was influenced to some degree. Sri Lanka was briefly occupied by the Tamils in this century. (Ref. 5)

1

[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

3

[114] KITAGAWA, JOSEPH M., "The Eightfold Path to Nirvana", Great Religions of the World. (National Geographic Society, 1978 Edition).

4

[275] FISHER, ROBERT E., "The Stone Temples of Kashmir", Archaeology 35, No. 4: 47-53, July/ Aug. 1982.

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

The Indian Subcontinent: A.D. 201 to 300

THE INDIAN SUBCONTINENT

The Kushan rule in India faded away. Ujjain, in Malwa, continued as a capital and center with a continued dynasty of Western Satraps. The Buddhist community was now definitely divided into Hinayana and Mahayana groups, but in the far south Hinduism was the more important. Brahman colonies with Hinduism and the caste system were imported from the Ganges Valley at various periods and endowed by local rulers. This was done in Bengal. About 225 in Maharashtra, the break-up of the Satavahana Empire led to the establishment of the Traikutka Dynasty from local pastoral tribes. They eventually even took over the throne at Ujjain.

Sanskrit now began to be revised as a more common language, after several hundred years of partial banishment. This attested the prestige of the Brahminical tradition and proved the effectiveness of the numerous educational institutions of the land. It might be appropriate to insert here, that not all of the Brahman caste were priests. Although they were, in Hindu tradition "born twice", once at delivery and once at age six when a double stranded gut of sacred thread was looped around their necks, their privileges were not necessarily either economic nor purely religious. Some were poor farmers, some mailmen, some workers of other trades, but all supposedly lived by many daily rituals. (Ref. 1, 2)

Possibly originating in India in this century (otherwise in China) was a high quality carbonized steel made by a crucible smelting process unknown in Europe until the 19th century. This came to be known as Damascus or damask steel in Europe and was used particularly to make swords of amazing sharpness. Ingots of this were exported from India to the Far East, Arabia, Syria, Russia and

Persia. (Ref. 3)

1

[119] LANGER, WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952.

2

[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, Freedom at Midnight. (Simon & Schuster, New York, 1975).

3

[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981.

The Indian Subcontinent: A.D. 301 to 400

THE INDIAN SUBCONTINENT

The power of the Kushans continued to fade and a line of native kings appeared in the Gupta Dynasty, beginning with Chandragupta I in A.D. 320, based in Magadha. His successor, Samudragupta, in a 50 year reign, became one of the foremost monarchs in India's long history. He conquered Bengal, Assam, Nepal and southern India and with the wealth thus gained promoted literature, science, religion and the arts. It was the Golden Age of India, while Europe and China were falling into what many have labeled the "Dark Ages". Buddhist art reached its zenith. The decimal system was used here long before the Arabs and Syrians used it. Chemistry developed from two sources – medicine and industries such as dyeing, soapmaking, tanning and the manufacture of glass and cement. The making of solid sugar by boiling cane juice was begun in this century. The Iranian frontier standing between the steppes and India secured the latter against invasion and thus indirectly contributed to the flowering of the Indian culture. Toynbee (Ref. 1) considers the Gupta Dynasty as a resumed Indian universal state after the Hellenic interruption of Alexander's conquests. (Ref. 2, 3, 4, 5)

The great Hindu epic poems, the Mahabharata and Ramayana, were written down in Sanskrit in this period. The first of these was three and one-half times as long as the entire Bible. The Brahmins, the priestly class of the Hindus, were again growing in wealth and power and by the end of the century they finally won out over the Buddhists and established a universal religion of Hinduism. This emerged from older Brahminism through re-evaluation of a multiplicity of local worships.

Sushruta (also Susruta or Susruta) was a great Indian surgeon who did many advanced surgical procedures, including cataract operations, hernia repairs, lithotomies and Caesarian sections. Cataract was treated by couching (displacing the lens downward); amputations were common and several types of plastic surgery procedures were done. Since cutting off the nose was an official punishment for adultery, Indian surgeons developed elaborate flap operations turning skin down from the forehead to reconstruct a nose. Sushruta also excelled at plastic repair of torn ear lobes. His armamentaria included 121 surgical instruments. He recommended the observations of corpses as a means of learning anatomy but demands of ritual purity prevented dissection. Some 1,120 diseases and 760 medicinal plants were classified. Physicians were taught in apprenticeships and then subjected to certification by the ruler. The neophyte finally took an oath, not unlike the Hippocratic oath of Greece. (Ref. 6, 7) (Continue on page 400)

1

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

2

[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

3

[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

4

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

5

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

6

[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

7

[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D., Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York 1978).

The Indian Subcontinent: A.D. 401 to 500

THE INDIAN SUBCONTINENT

The Gupta civilization continued to flourish in northern India, but at the close of the century a new barbarian eruption shattered the peace as the Ephthalites overran and invaded northwestern India from central Asia. There is still apparently some confusion about the make-up and origin of these invaders. McNeill (Ref. 1) calls them a branch of the Mongol Juan-Juan but other authorities (Ref. 2) insist that they were of a white, Turkish race, not Mongoloid. At any event, although they had made some raids as early as 455 by 480 they had destroyed the Gupta Empire, never to be restored, and they had demolished the Buddhist monasteries.

In western India many impregnable fortresses in Rajputana kept the Asian invaders out and the local power was divided among several local dynasties. A Pallava warrior dynasty controlled the Deccan and there were many local altercations with the adjacent Chalukyas.

Individual accomplishment is often independent of external rule and so in spite of the turmoil of this period in India, Aryabhata (A.D. 499) wrote a mathematical works for use in astronomical calculations. Much was borrowed from the Greeks but some innovations appeared, including a unique system of numerical notation. He was familiar with the decimal system and with zero, although he did not actually use the latter. He taught the theory of the rotation of the earth and gave the value of Pi at 3.141.

[139] MCNEILL, WILLIAM H., *The Rise of the West*. (The University of Chicago Press, 1963).

2

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

The Indian Subcontinent: A.D. 501 to 600

THE INDIAN SUBCONTINENT

Chaos continued from the Ephthalite invasions throughout the failing Gupta Empire in the north. The invaders were finally defeated by a Hindu confederation in 528 but they had profoundly affected the caste system and disrupted the hierarchy of ruling families. Some Ephthalites stayed in India as a distinct group. In spite of the warfare, great scientific progress was made in this northern India area, with advances in chemistry such as calcination, distillation, sublimation, production of light without heat, the mixing of anesthetic and soporific powders and the formation of metallic salts, compounds and alloys. Brahmagupta, the astronomer, lived near the end of the century and systematized rules of arithmetic, algebra and astronomy and developed an integral solution of an indeterminate equation. (Ref. 1, 2)

The third branch of Buddhism, Tantric, appeared in the Himalayan lands, interlacing Mahayana Buddhism with old Tantric cults of India that invoked deities by magic and rituals. There was a large array of divinities both male and female, along with demons. (Ref. 3)

The Deccan was not unified again until about 550, under the western Calukya Dynasty. Southern India remained essentially Dravidian, but little is known of its detailed history and nothing of its art until the end of this century when the Pallavas ruled from north of Madras to the sacred river, Kaseri, and had sculptures and cave temples. Still farther south were the Pandyas and Ceras. (Ref. 4)

In Ceylon, the original Veddas were conquered by Sinhalese invaders from northern India and the Veddas survive today only as

a small group in the remote interior. (Ref. 5) (Continue on page 445)

1

[38] COLUMBIA ENCYCLOPEDIA, 3rd Edition. (Columbia University Press, New York and London, 1963).

2

[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

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[114] KITAGAWA, JOSEPH M., "The Eightfold Path to Nirvana", Great Religions of the World. (National Geographic Society, 1978 Edition).

4

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

5

[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

The Indian Subcontinent: A.D. 601 to 700

THE INDIAN SUBCONTINENT

Harsha-Vardhana (also Sri Harsha), a scion of the Gupta line, recaptured and unified northern India in 606 and, ruling from Kanauj, gave peace and security to the area for 42 years. Arts and letters flourished and the Buddhist religion had a revival. At his death, however, chaos again ensued and India had her "Dark Ages" for the next 1,000 years. By the middle of the century a Chinese "tourist" reported that there were 70 kingdoms in the country. The two principal dynasties in western India were the Maitrakas, who created a Buddhist scholastic center, and the Gurjara, a horde of central Asiatics, who had settled in the central Rajputana.

The Deccan, on the plateau in southern India, remained independent under the Calukyas Dynasty. (Ref. 1) Under one of their more famous kings, Pulakeshin, this country controlled and commanded respect from a good deal of territory, including central India. It was the time of the famous frescoes of Ajanta. At the very southern tip of India the Pandyas Dynasty had a capital at Madurai and the Pallavas at Kanchipuram. The latter controlled the rich coastal area on the east, while similar land on the west coast was controlled by the Cheras in the region now called Kerala.

Hinduism developed two sects - Vaishnavism (worship of Vishnu) and Shaivism (worship of Shiva). As these increased in popularity Buddhism and Janism shrank in importance. The speech of ordinary people diverged more and more from the Sanskrit of the intellectual and the population of about 100,000,000 remained quite constant. (Continue on page 467).

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

The Indian Subcontinent: A.D. 701 to 800

THE INDIAN SUBCONTINENT

The Moslems became established in the Indus Valley, taking Sind in A.D. 711, and they also took over the central Asian oases north of the Hindu Kush, while Moslem shipping took over control of the Indian Ocean, thus almost isolating Hindu India. The Himalayan borderlands remained beyond Moslem reach. Kashmir and Bengal had become powerful states soon after the 6th century and continued throughout the period under review. Magnificent Buddhist temples were constructed in Kashmir at this time. (Ref. 1) There were no powers in the north of India equal to those in the south but by the end of this century two new dynasties, the Palas of Bengal and the Pratiharas of Rajasthan began a struggle for the control of northern India. The former were Buddhists with strong ties to Tibet and kept the old religion alive at a time when it was disappearing elsewhere in India. It was from this group that Tibet got their Tantric form of Buddhism in this century. The Gujjaras of western India united with Pratihara and together they succeeded in keeping out the Moslems for another two centuries.

In the Deccan, the Rashtrakutas overthrew the Chalukyas in 753 and began a 200 year rule. They built the greatest of the Indian rock-cut temples. The warrior kings of the Pallava continued to rule a part of the Deccan, however, as they had for almost 500 years and in their empire assemblies of village leaders, guilds and professional groups were held annually, making a unique form of democracy. At the last of the century, in the east, the eastern Chalukya Dynasty began to exert some control as a Buddhist clan with unique Buddhist bronzes. Kalinga was ruled by the eastern Gangas. In southern India, there- was conflict between Jains and the adherents

of Shivaism which sometimes led to massacres. (Ref. [2](#), [3](#), [4](#), [5](#), [6](#))

Scientific activity continued in India, with advancement particularly in mathematics - including rules for finding permutations and combinations, the square root of two and the solving of indeterminate equations of second degree - all features unknown in Europe until the time of Euler, 1,000 years later. The staple crops were wheat, rice and some millet. Exports were cotton textiles and spices, while the most sought after import was the horse. (Continue on page 497)

[1](#)

[275] FISHER, ROBERT E., "The Stone Temples of Kashmir", *Archaeology* 35, No. 4: 47-53, July/ Aug. 1982.

[2](#)

[137] MCEVEDY, COLIN, *The Penguin Atlas of Medieval History*. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

[3](#)

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

[4](#)

[68] GARRATY, JOHN A. AND GAY, PETER, (Editors), *The Columbia History of the World*. (Harper & Row, New York, 1972).

[5](#)

[213] THOMAS, HUGH, *A History of the World*. (Harper & Row, Publ., New York, 1979).

[6](#)

[19] *BRITISH MUSEUM GUIDE*, (British Museum Publications Limited, 6 Bedford Sq., London).

The Indian Subcontinent: A.D. 801 to 900

THE INDIAN SUBCONTINENT

The Arabs who had invaded Sind in the last century were held at bay by the Pratihara. These Sind Arabs now split up into the twin kingdoms of Multan and Mansura, later to become important trading communities on the Indus and independent of the Abbasids.

The consolidation of powerful states along the northern marches gave Indian politics a new character. No one state was strong enough to unite the north Indian plain, yet each was able to prevent any other from so doing. Frontier guard against Islam no longer was a problem and the Indian rulers were free to pursue their own quarrels. Finally the Pratiharas overcame the Palas and were in control of the Gangetic plain, becoming the greatest political power in India and great builders in the Gupta tradition. (Ref. 1) Cities flourished and the revival of Hinduism resulted in more and more organization around temples, so that everyone tended to cluster within the temple precincts. Royal courts began to play only a secondary role. Tantrism had now come to full flower as an atavistic, magical and libidinous cult absorbed into the Hindu practices, with special influence from eastern India to Nepal and Tibet. The most influential Hindu religious philosopher was Shankara (also Sankaracharya), a Brahman from Kerala, who tried to reduce the multiple concepts of the Upanishads to an intellectual system. (Ref. 2) Buddhism gradually merged back into the wider field of Indian religiosity from which it had sprung and it survived as a distinct doctrine only on the fringes of the Indian world, in Ceylon, Burma and Tibet. (Ref. 3) Even in Kashmir, Buddhism seemed to give way in some degree to Hinduism with the

construction of the shrine of Avantisvami, made with steeply pitched, double-pent roofs, because of the heavy winter snows. The design had a central tower shrine and a smaller shrine in each corner, the typical Vishnu, Kashmiri temple. King Avantivarman (855-883) was one of Kashmir's most beloved monarchs, reigning in an era of peace. (Ref. 4)

The Jains resisted the Tantric movement and retained their identity but with a very limited membership, chiefly in southern and western India. The Parsis, followers of Zoraster, came to India about this time as refugees from the Moslem conquest of Persia and they have survived until today mainly in the region around modern Bombay. In the Deccan, the Rashtrakutas, who had overthrown the Chalukyas, built the great temple of Ellora, carved from solid rock. They were also true patrons of literature. In the south the Pallavas were superseded by the Cholas, who sculpted hard stone and modeled bronze. (Ref. 5) Samkara, of Malabar on the southwest coast, revitalized the Vedanta¹ and his doctrine became accepted as orthodox Brahmanism. He founded four scholastic monasteries (Continue on page 527)

1

[68] GARRATY, JOHN A. AND GAY, PETER, (Editors), The Columbia History of the World. (Harper & Row, New York, 1972).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[139] MCNEILL, WILLIAM H., The Rise of the West. (The University of Chicago Press, 1963).

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[275] FISHER, ROBERT E., "The Stone Temples of Kashmir", Archaeology 35, No. 4: 47-53, July/ Aug. 1982.

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[173] RAMSEY L.G.G., The Complete Encyclopedia of Antiques. (Hawthorn Books, Inc., New York, 1962).

6

[119] LANGER, WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952).

1. The Vedanta is a derivative of the Upanishads. (Ref. 6)

The Indian Subcontinent: A.D. 901 to 1000

THE INDIAN SUBCONTINENT

We noted in the last chapter that Buddhism was being replaced to some extent in Kashmir by Hinduism, but one particular off-shoot of Hinayana Buddhism called "Sarvastivadin" tended to persist alongside Siva and Vishnu. A distinct school of Saivism developed which added deep philosophical aspects to the Kashmir intellectual tradition. (Ref. 1)

The Pratihara power in the north began to weaken as the result of Turkish raids and battles with southern dynasties. Beginning about 997 the Turk Mahmud from Ghazni, Afghanistan, made regular raids into Hindustan. The Rashtrakutas were the last southern power to ever exercise any pressure against the north until the 18th century and in this 10th century they were displaced in the Deccan by a descendant of the old Chalukya kings. In central India the Chola Kingdom developed between Madura and Madras and extended westward to Mysore. This began a long career of conquest which brought them tribute from all southern India and even Ceylon. Religion and gods and temples had definitely come to the forefront in Indian culture. The Tantric cult practices were absorbed into general Hinduism and Buddhism became an empty shell by the end of the century. (Ref. 2)

Sri Lanka (Ceylon) has strong historical connections with north India from which both its language and dominant religion, Buddhism, are derived. Artistically, however, it has been influenced by the eastern Deccan and southern India. At the end of this 10th century Ceylon was invaded by the militant Cholas and the locals moved their capital south to Polunnaruwa. At the peak of its glory the city of Anuradhapura, now buried, had an area greater than

modern day Chicago. The inner city contained only holy structures, palaces and pleasure domes for royalty. Thousands of monks took their daily rice from huge stone troughs that still exist. (Ref. [3](#))
(Continue on page 563)

[1](#)

[275] FISHER, ROBERT E., "The Stone Temples of Kashmir", *Archaeology* 35, No. 4: 47-53, July/ Aug. 1982.

[2](#)

[119] LANGER, WM. L. (Editor), *Encyclopedia of World History*. (Houghton Mifflin Co., Boston, 1952.

[3](#)

[108] JORDON, ROBERT PAUL. "Sri Lanka", *National Geographic* 155: 123, Jan. 1979.

The Indian Subcontinent: A.D. 1001 to 1100

THE INDIAN SUBCONTINENT

As the Pratihara Dynasty fell in 1019, political power in the north of India passed to local chieftains, most of whom belonged to Rajput clans and who were descendants of Ephthalites and other invaders of the past. Then Mahmud the Turk raided from Afghanistan into western India and became the richest king in history. Moslem historians have rated him the greatest monarch of his time, as he ruled the Punjab and the northern Ganges regions, although keeping his headquarters in Afghanistan. (Ref. 1)

Palas Buddhist kings ruled Bengal and Bagadha but Chola armies from the south raided as far north on the east coast as the Ganges Delta. These Cholas, originally from the tip of the peninsula, were an ancient people who had now conquered most of Tamil, the eastern Deccan, Ceylon and parts of the Malay peninsula, under their King Rajaraja and his son, Rajendra. Then they drove north, helping to dismember the Palas domains and threatening the Bengals' independence. Ceylon (Sri Lanka) finally expelled the Cholas in 1070 when the dynasty was ended by an assassination.

It is of some interest that in this century the ancient Ayurvedic (knowledge of life), a traditional Indian healing method, was translated into Persian and Arabic and thus eventually spread to medieval Europe. (Ref. 2) (Continue on page 594)

[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D.,
Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York
1978).

The Indian Subcontinent: A.D. 1101 to 1200

THE INDIAN SUBCONTINENT

India's "Dark Ages" continued with only one bright spot, the Rajputana¹. In the small sub-states of historical Mewar (now Udaipur), Marwar, Amber and adjacent areas a people one-half native and one-half descended from Scythians and Ephthalites, built a feudal civilization under the government of war-like rajas. The central feature was a blood relationship within each clan. All the Rajput courts were centers of Sanskrit learning and their chronicles included a chivalric code unique in India. Their sovereignty ended late in the century when a new Turkish power swept down from Central Asia. This was a remnant of the old Ghaznavid Empire which had been thrown out of Asia in the last century by the Seljuqs and was now led by Muizzudin Muhammad of the Ghurid family. Having overthrown their Ghasnavid suzerains, they entered the Punjab in A.D. 1186 and had defeated the Rajput clans by 1191. Muhammad (also known as Muhammed Ghuri) set up the Sultanate of Delhi, which was to rule northern India for three centuries with great cruelty and fanaticism. Wells (Ref. 1) calls this the Kharismian or Khiva Empire of Turks. Mohammad appointed Kutb-ud-din Aibak, a slave from Turkistan, to be viceroy of his Indian conquests and left him full discretion in its management. About 1200 these Turkish Moslems swept into Bengal (now Bangladesh) and were eagerly greeted by the people who were seeking a release from Hindu oppression. (Ref. 2, 3, 4, 5) (Continue on page 643)

[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

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[119] LANGER, WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952.

5

[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, Freedom at Midnight. (Simon & Schuster, New York, 1975).

1. Rajputana is the historical state roughly corresponding to modern Rajasthan

The Indian Subcontinent: A.D. 1201 to 1300

THE INDIAN SUBCONTINENT

We noted in the last chapter that after 1186 the Moslem Turk, Muizzudin Muhammad, led his forces down from Afghanistan to set up the Sultanate of Delhi. The first 13th century ruler (A.D. 1206) of this new dynasty was Qutbuddin Aibak, a general of Muhammad's, who established a capital at Delhi. By 1235 this sultanate had extended from the Sind to Bengal and continued to gradually expand. (Ref. 1) The general policy of those Turkish sultans of India are indicated by Ala-ud-din 's instructions to his advisors near the end of the century to the effect that they should draw up rules and regulations for grinding down the Hindus and depriving them of wealth and prosperity. Although politically succumbing to these invaders, 4/5 of the people of India remained Hindus although impoverished. Lacking power to resist they took refuge in supernatural consolations.

Hinduism argued that both mastery and slavery were superficial delusions and concluded that freedom of body or nation was hardly worth defining in so brief a life. That was and is the secret of India. (Ref. 2) Metallic guns with powder, but not cannon, were in use in India by 1275. (Ref. 3) (Continue on page 684)

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

The Indian Subcontinent: A.D. 1301 to 1400

THE INDIAN SUBCONTINENT

The Delhi (Turkish) Sultanate expanded under a new Turkish group, the Khalis, and they were alert enough to admit local Indian Muslims to high office, thus relieving much of the internal tension. Under Muhammad bin Tughlug (1325-51) the sultanate reached its maximum with 23 kingdoms, including all of the southern ones - an area larger than any Indian conglomerate since Asoka. (Ref. 1) He attempted close control over the economy, fixing prices, replacing gold and silver money with copper and brass tokens and regulated imports and exports. (Ref. 2) High taxes, an abortive attempt to move Delhi, with all its people, to the south and the sheer size of the empire led to its decline. Various states broke away and by the time of the invasion by Timur in 1398 Tughlug barely controlled the area beyond Delhi, itself. (Ref. 3) Timur sacked Delhi, however, slaying 100,000 prisoners in cold blood after defeating Tughlug's Moslem forces.

The religious and philosophical Hindu activity in Kashmir ceased when the Moslem invaders took over the valley and today Kashmiris are nearly all followers of Islam. (Ref. 4)

In southern India the state of Vijayanager began to rise as a power and soon comprised all the present native states of the lower peninsula, along with Mysoa and Madras. It was primarily a military realm which fought constantly with the northern sultanate, using cannons and cavalry. It did not fall to the Moslems until late in the next century.

1

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The Indian Subcontinent: A.D. 1401 to 1500

THE INDIAN SUBCONTINENT

As many Hindus began to accept the Moslem faith, both religions had adaptations to make. The caste system was not compatible with Islam, but the Sufi ideas could be adapted to Indian mysticism. Ramananda and Kabir were reformers who spoke against the caste system, reincarnation, etc. Kabir claimed all Hindus and Moslems really worshiped the same God and should be one religious community. The Sikhs trace their origin to Kabir, although their distinct religious organization did not appear as such until later, under Nanak, in 1538. The Kingdom of Delhi, although reduced in size, kept a tenuous hold over the Punjab. The Sayyid rulers laid claim to Arab descent from the Prophet. Later, in 1451, the Afghan, Bahlul Lodi, founded the Lodi dynasty in that area.

Unfortunately, one early century Kashmir ruler, Sikander, became so inflamed with Islam that he leveled most of the earlier Buddhist and Hindu structures, leaving piles of stone scattered across the valley where these beautiful temples had previously stood. (Ref. 1)

The Vijayanagar Empire was the dominant power in south India, shielding the southern people from the Moslem kingdoms of the north. The capital city, by the same name, was some 60 miles in circumference, flourishing as a trade, Brahman studies, and Dravidian art center. Their kings had great wealth and power, and during the reign of Krishnadeva Raya the empire had dealings with many Asian and European countries. In a great battle of Talikota in 1565, however, Moslem forces completely demolished the capital city and, in essence, destroyed the empire. By 1500 most of India had submitted to Moslem rule.

Incidentally, syphilis had reached India by 1498. (Ref. 2, 3)

Ceylon was involved in active spice trade with China and the Arabs in this 15th century. The Portuguese had conquered some coastal areas and implanted the Catholic religion. (Ref. 4, 5)
(Continue on page 811)

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The Indian Subcontinent: A.D. 1501 to 1600

THE INDIAN SUBCONTINENT (See Map in section on INDIA, 18th century)

Two separate powers continued to exist in India. In the north Babur, a Turkish chieftain, 5th in line from Timur, entered India in 1523 from Afghanistan with artillery and only the Rajputs organized to resist. After the battle of Panipat in 1526 he became the Mogul ruler who made Delhi equal to a Medicean Rome. Agricultural activity increased greatly with land-clearing, irrigation projects and new industrial crops such as indigo, sugar cane, cotton and mulberry trees for silk-worms. Silver coins appeared in this century as rupees, although affecting only the upper level of economic life. Actually India was one of the countries that in effect helped to hoard the silver from American mines. It was this American silver which fed the countless mintings and reminting of coins. (Ref. 1) The less fortunate used copper coins and bitter almonds as money. The gold coins used in the reign of Akbar were seldom seen. Even more than in Europe, fairs were a part of every day life, almost always combined with the endless pilgrimages. Barter was often more common than the use of money, except in the large fairs on the Ganges. Each religion had its own fairs; the Hindus at Hardwar and Benares; the Sikhs at Amritsar; the Muslims at Pakpattan. (Ref. 2, 3)

After Babur's death, the Afghans were expelled from India by Sher Shah and it took a new full scale invasion by Babur's grandson Akbar to restore the Mogul rule over all Hindustan except for Mewar. The Mogul emperors regularly had relays of horsemen from the Hindu Kush bring their fruit-flavored sherbets or water ices to Delhi. Persian horses were brought in by fleets and sometimes sold

for 20 times the value of a slave. With no barley or hay, the horses were fed on a type of large pea, crushed and then soaked. (Ref. 4) Akbar was the greatest and most beneficial of all the Mogul rulers and overall they were the best of the foreign dynasties that had ruled India. Akbar used the Persian language in his court and had Hindu literature translated into that tongue. He encouraged all religions - Moslem, Brahman, Buddhist, Christian, Zorastrian and Jains and finally tried to promulgate a new one, including some of the features of all and called this *Din lahi*. It did not succeed and throughout the Mogul period it was basically the Moslem faith that was in competition with Hinduism and the greatest barrier to Hindu-Moslem understanding was not metaphysical, but social. The five original castes of the Hindus had subdivided through the centuries into almost 5,000 sub-castes, a system that the original Aryan founders had developed to perpetuate the enslavement of the original dark-skinned Dravidian peoples, who became the "Untouchables". Islam's mosques drew millions of converts, and the vast majority were those Untouchables seeking release from the hopelessness of their place in the Hindu hierarchy.

The Moslem upper classes -many of them descendants of the Mogul (Turkish) invaders, tended to be landlords and soldiers, but the Moslem masses usually continued to be landless peasants in the service of others. There were no "great families" in Delhi. The Great Mogul appointed lords for life, only, but did not continue such grants for their children. Thus there was no feudalism and perhaps accordingly no precursor for capitalism. (Ref. 5) Muslim food became popular, particularly the addiction to sweets. Our word "candy" is derived from an Arabic word for "sugar". (Ref. 6, 7) Great famines occurred in 1555 and 1596 in northwest India and there were even reports of cannibalism. (Ref. 8)

Sikhism was developed at the warring frontier of the Punjab from the impact of monotheistic Islam on polytheistic Hinduism. It was founded by an Hindu guru trying to reconcile the two faiths, using ideas favored by the Moguls. Hounded by the Mogul cruelty, however, Nanak, the 10th guru of Sikhism, converted the new religion into a fighting faith and from that time on every Sikh's name ended with Singh, meaning "lion" and every one had to follow the law of the five K's: (1) Kesh - let beards grow. (2) Khangha - keep a steel comb in uncut hair. (3) Kucha - wear shorts for warrior's mobility. (4) Kara - wear steel bangle on right wrist. (5)

Kirpan - go with a sword.

All were advised to refrain from smoking, drinking alcohol, uniting with Moslem women and eating meat which had been slaughtered by Moslems, i.e. by cutting throats. Their most sacred site was the Golden Temple which sheltered their Holy Book, the Granth Sahib, at their capital at Amritsar. (Ref. 9)

In the south, the Empire Vijayanagar, with the capital city of the same name, remained prosperous under a great King Krishna deva Raya. The city occupied an area of 60 square miles in circumference. Contrary to the situation in the north, gold coins were the major currency in the Deccan and at lower levels silver and copper were used along with sea shell money. India had no gold of its own, however, and the money came from the West for Indian merchandise. A great textile business had developed in Gujerat and there was an enormous burst of industrialism there in this 16th century. (Ref. 10) Buddhism had lost its hold in the south and a form of Brahmanism that honored Vishnu had become the faith of the people and the cow became holy. In 1565 the Vijayanagar Empire fell in a day in the battle of Talikota to a coalition of Moslems, chiefly from Iran and Turkistan.

Despite the political eclipse of Hinduism by the Moslem conquerors, the overwhelming majority of the natives remained faithful to their ancient religion and considered Moslems as simply another caste. Hindu high culture, however, was impoverished and construction of Hindu temples came to a halt. The use of vernacular tongues for Hindu literature was promoted by the poet Sur Das and a new religious fervor was developed in Bengal as the holy man, Chaitanya, began to be considered God incarnate, a reincarnation of Vishnu. (Ref. 11)

It should be noted that in the interior of India, where water transportation was not available, imperial consolidation was most difficult because of the problem of obtaining cannon at battle sites. Babur attempted to cast cannon on the spot and at the end of the century Akbar hauled some overland and - thus both obtained large areas of domination. (Ref. 12)

The Portuguese began their conquests in India with a sea battle off the port of Diu in 1509 and the superiority of their long range weapons, accurate up to 200 yards, prevented the Moslem fleet's "board and fight" technique and led to easy victory. By 1537 the Portuguese had established trading posts on the Hooghly River, off

the Bay of Bengal. The Hooghly is a secondary branch of the Ganges, going to the sea, although it is still "Mother Ganges" to the Hindus. The larger Ganges branch, the Padma, goes eastward into west Bengal. (Ref. [13](#)) The East India Trading Company, as we noted previously, was founded in London September 24, 1599 with an initial capital of 72,000 British pounds and 125 shareholders. It was formed to compete against Dutch privateers who controlled the spice trade. Eight months later, in August of 1600, the 500 ton galleon Hector dropped anchor just north of Bombay and its Captain William Hawkins set off to explore the interior where he finally met Emperor Jehangir, the world's richest monarch and the fourth of the great Moguls. (Ref. [14](#))

Sri Lanka did not escape the Portuguese, who landed in 1505 and who soon controlled most of the island and its spice trade, giving it the name "Ceilao". Only the mountain kingdom of Kandy escaped them. (Ref. [15](#), [16](#)) (Continue on page 902)

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The Indian Subcontinent: A.D. 1601 to 1700

THE INDIAN SUBCONTINENT (See map, this section in next chapter)

The sons of Akbar inherited his empire but not all of his qualities. Jehangir¹, who ruled first, was an able degenerate of great cruelty with a harem of 6,000 women. His brother Jehan followed with a return to the Moslem faith and persecution of all others. His fame is in the Taj-Mahal, built in memory of his wife, Mumtaz. Actually India was then at a zenith of prosperity and prestige, in spite of one of the worst famines in history occurring in 1630-31, with hundreds of thousands dying and the countryside stinking with abandoned corpses. Human flesh was sold in open market. (Ref. 1) Copper began to run out, in spite of some imports from China and Japan, so that copper coinage began to slow down and silver came to the fore. Cowries were also again brought into common use to replace copper *paysahs*. (Ref. 2)

In the far north in the Pun jab the Sikhs had sought to reconcile the Moslem and Hindu faiths in a higher revelation, and their canon of religious writings was officially closed in 1604. Soon thereafter the Sikh leaders fell afoul of the Mogul authorities and the community took to arms, battling the Moguls throughout the remainder of the century. In 1699 the Guru Gobind Singh made the *Granth*, scriptures from writings of Hindu, Moslem and Sikh holy men, the official symbolic guru of Sikhism. (Ref. 4)

To regress for a moment, early in the century the Turkish Moguls extended their empire throughout southwestern India, including Sind, Rajputana and Gujerat, so that only the southeastern part of the peninsula remained independent as the Deccan Sultanate. Even this fell almost entirely to the Moguls as the century progressed. But

these southern conquests brought them into confrontation with a new Hindu power, the Marathas, who had established an independent kingdom on the Konkan coast beginning in 1627 under Shivaji (also Shivaji) the greatest Hindu warrior hero. (Ref. 5, 6) Shivaji opened a guerilla campaign against the Emperor Aurangzeb (1658-1707), Jehan's son, a pious Moslem, who despite his despotism, subtle diplomacy and peculiar morals was the least cruel of the Moguls².

He warred against the Hindu religion and art and although worshipped as a saint by the Moslems, his religious zeal wrecked his dynasty and his country. Famine killed 3 million in Bengal in 1669, although in other years it was the one area of India which could export rice. (Ref. 8, 9) As in China and black Africa, human labor was widely used. When Aurangzeb made a journey to Kashmir, his loaded camels were relieved on the first slopes of the Himalayas by 15,000 to 20,000 porters. Royal orders were carried, as in Persia, by running men, relieved about every 6 miles, the teams covering a total of 30 to 60 miles a day. It is interesting that several hundred thousand people followed Aurangzeb to Kashmir, as Delhi was almost "shut-down" in the absence of the Great Mogul and his court. (Ref. 10)

Although it is well known that cattle are considered sacred and left running free in much of India, in the 17th century many were harnessed to plows and carriages and even ridden by soldiers and nobles. The Mughal caste sometimes had enormous convoys of up to 10,000 animals transporting grain and rice. India had many highly skilled workers, particularly in the textile industries, even though they did not develop the high quality tools that were used in Europe. (Ref. 11, 12)

By 1700, as the Mogul administration was in decay, the Marathas were ravaging the Deccan and eastern provinces and previous Mogul allies such as Rajputs, Sikhs, Jats and Satnamis were all revolting. In the meantime Portuguese influence on the coast shrank both in territory and commercial profit, but Dutch, English, French and Danish companies were all eager to set up coastal trading centers to export textiles, sugar, indigo and salt petre. (Ref. 13) Near Portuguese Goa, because of a shortage of wood, houses were small and made of straw and most had no fireplace or windows. The furniture consisted of a few rush mats. (Ref. 14) Nevertheless, every urban center in India had its money-changing bankers - the

sarafs, who mostly belonged to the powerful trading caste of the Banyans. Although there were no large stock exchanges as in Europe, still there were bills of exchange, currency exchange, credit and maritime insurance and the Banyans acted as brokers and middle men for all the European activities. Not surprisingly the Fuggers and the Welsers of Augsburg were also well represented in India, with their joint representative, Ferdinand Cron, operating out of Cochin and then Goa. He amassed a personal fortune by 1619 working with Spanish and Portuguese, although the latter finally imprisoned him. (Ref. 15)

The French East India company, founded in 1664, never did well, perhaps because of a lack of means and the general immaturity of French capitalism. Surat, on the Gulf of Cambay, progressively became more and more of a boom city as the century progressed. First the English had a trading post there in 1609, then the Dutch in 1616 and the French in 1665, with lavish equipment. In 1652 Surat was already as large as Lyons, with a population perhaps approaching a million, acting as the gateway to the Mogul Empire. The Banyans were the most important group of intermediaries. (Ref. 16) Calcutta was founded by the British East India Company on the Hooghly River in 1690 by absorbing three villages, one of which was called Kalikata, honoring the goddess Kali, which may have given Calcutta its name. (Ref. 17)

Heirs of Sivaji, the peshwas, were a tight clique of Chitpawan (purified by fire) Brahmans, who continued to resist British rule in the south. (Ref. 18) The poet, Tulsi Das, translated material into Hindu from the Ramayana, elaborating on the divine incarnation, Rama. This was widely popular and of enormous importance for later moral and religious education. This popular movement, along with that of Chaitanya and Sin Das, helped protect Hinduism from the charms of Islam. (Ref. 19)

The Dutch arrived on Sri Lanka in 1658, changing the name again to "Ceilon". Life was hard there and it has been reported that rice cooked in water with a little salt, some green leaves and lemon juice passed for a good meal. There were no markets on the island but there were shops. (Ref. 20, 21).

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1 The name means "Conqueror of the World". (Ref. 3), page 211

2. When Jehan had fallen ill, Aurangzeb had killed his 3 older brothers, imprisoned his sick father and seized the throne. (Ref. 7)

The Indian Subcontinent: A.D. 1701 to 1800

THE INDIAN SUBCONTINENT

Shortly after Aurangzeb's death in 1707, many of the provinces became essentially independent. The Peshwas, officially the chief ministers of Sivaji's house, presided over a confederacy of Maratha chiefs representing the Sindhias, Gaikwars, Holkars and Bhonslas. (Ref. 1) In addition, as the Mogul Empire went into decay, it was subject to many raids from the outside. Nadir Shah, the Turcoman ruler of Afghanistan and part of Persia raided to Delhi, where he almost destroyed the city. At about the same time the British, French, Portuguese, and French moved in from the coasts. This is not to imply that the Europeans immediately conquered all. In 1722 combined English and Portuguese forces suffered an humiliating defeat at the hands of Kanoji Angria and in 1739 the Dutch were routed when they tried to land in the Kingdom of Travancore. Yet, after 1730 the trading balance began to shift as European shipping greatly increased, with more cargoes of goods and silver. The Westerners established their own trading networks, which in turn hastened the end of the great Mogul's Empire. (Ref. 2) India and the Far East, whose industries were as advanced as Europe's, only wanted silver - not goods - in exchange for their tea, cotton, and silk. England alone spent 30,000,000 pounds in silver between 1733 and 1766 to cover her purchases in India and the East. (Ref. 3) In the early years much of that involved the printed "calico" cotton fabrics, but after the Industrial Revolution the English made those themselves and ruined the Indian weavers. (Ref. 4) The same occurred with France, where authorities for a long time tried desperately to protect their local manufacturers from the invasion of those light fabrics from India, even levying fines and harsh

punishments to those who bought or sold them. After 1759 such bans were lifted as the French established their own cotton industries.

We dealt with the money-changing bankers of India, the Sarafs, in the last chapter. Belonging chiefly to the powerful trading caste of the Banyans, these men organized an extensive commercial organization. A trader could borrow money in one city, pay back in another where he transferred the debt to a third place by borrowing again and so on. Exchange fees resembled interest, sometimes at a staggering rate, but they allowed merchants to operate as far away as Java or southern China. The Banyan bankers themselves were present in large numbers in Isfahan, Istanbul and Moscow. At home one of the commercial and shipping centers was Surat. Sometimes one merchant alone would send out 20 ships a year, each from 300 to 800 tons and carrying up to 25,000 pounds of his own merchandise. (Ref. 5)

Map taken from Reference y/.

With the collapse of the Moguls, the Sikhs had a chance to make a kingdom of their own in the Punjab, but as warriors they lost some of their religious and philosophical goals. According to Moslem accounts, the Sikh rule was one which defiled mosques, outraged women, defiled tombs, and butchered Moslems of either sex by various horrible means. (Ref. 6) They were kept somewhat in check, however, by the invading Afghans from the north, who were led by Ahmed Shah Durani (1747-1793), who developed a short-lived empire from the Aral Sea to well into India. The hopes of the Marathas to succeed the Moguls were dashed at the Third Battle of Panipat in 1761 when the Afghan Ahmad Shah Abdali decisively defeated the Peshwas' forces. This permanently weakened the Hindu armies and left India far more vulnerable than before to later English encroachment. (Ref. 7, 8)

In the Deccan the Nizam of Hyderabad was a Muslim viceroy established in the 1720s, independent of Delhi. It was a dynasty which remained the most important Muslim ruling house in India up to 1948. (Ref. 9) Bengal was the third great province to become independent and in 1756 the Bengalese even temporarily drove out the British. A side light of that conflict was the infamous "Black Hole of Calcutta" incident. As the Nabob of Bengal sacked Calcutta, 146 Englishmen were forced into a guard room measuring 18' by 14'10", with only two small windows for ventilation. On the

following morning only 23 men were still alive. (Ref. 10) The East India Trading Company inevitably became embroiled in local politics and squabbles and felt that they should intervene. On June 23, 1757 Robert Clive, leading about 900 Englishmen and 2,000 Indian *sepoys* (native infantrymen), trained and equipped according to European methods and with 10 field guns, routed a Nabob's army of some 50,000 outside a Bengali village of Plassey and opened the gates of north India to the British. (Ref. 11)

Incident to the War of the Austrian Succession in Europe, French and English trading companies were in armed conflict on the eastern coast of India. Actually the European contingents of each were very small, but they dominated the battlefields containing hordes of local mercenaries because of their superior weaponry and obedience on the field. When the treaty of 1763 was signed, France was run out of India. Thereafter, in addition to Bengal, most of the eastern coast (northern Sarkars) was secured from the Nizam by 1768.

By the year 1700 there were about 1,500 Englishmen in India, but by the end of the 18th century the British Indian Empire had increased to thousands of British officials and soldiers under a British governor-general. The English in India tended to excessive drinking and eating. In 1756 one contingent of 848 men lost 87 from liver damage from alcoholism. (Ref. 12) On the other side of the coin, 10,000,000 Indians died in 1768 in the great famine of Bengal, the worst in the world's history.

After Clive, the East India Company was run by Warren Hastings and the Company taxed the land for 50% of the produce and made additional special levies. Enormous British fortunes were made, while, according to some writers at least, 30,000,000 humans were reduced to the extremity of wretchedness in a terrible tyranny. (Ref. 13) Winston Churchill (Ref. 14), of course, has a different version, stating that since Hastings got no financial help from England he had to raise money from the wealthy Bengali to rescue Bombay and the Carnatic (southern tip of India on the east) and to stop the bloodshed which was once more engulfing Bengal from the Mahrattas. He says that Hastings left India in 1785 "not without the gratitude of the inhabitants." Hastings had initiated some reforms, including a simplification of Indian coinage and government control of salt and opium production. (Ref. 15) He was finally charged with misconduct and brought home to stand a seven year trial in

England in which he was acquitted of all charges.

Other developments on the Indian subcontinent in this century include the invasion of Nepal by Chinese armies marching from Tibet in 1792, at which time the Gurkha tribesmen were forced to recognize Chinese suzerainty. The British took over most of Ceylon in 1795 and 1796 and began the importation of great numbers of Tamil laborers, the results of which are still upsetting Sinhalese politics. Coffee rust appeared first in Ceylon and soon spread throughout Southeast Asia, forcing a change of crop to tea and rubber. (Ref. 16, 17, 18) (Continue on page 1110)

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[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, Freedom at Midnight. (Simon & Schuster, New York, 1975).

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The Indian Subcontinent: A.D. 1801 to 1900

THE INDIAN SUBCONTINENT

India's history shows a tendency of any strong government, particularly those in the Gengetic plain, to expand and the British Bengal government-of about 1800 followed this pattern under Governor Lord Richard Colley Wellesley¹. Some territories were annexed outright; others were brought under control through a system of subsidiary alliances. The Marathas were finally crushed by the British in 1818 and all prospects of a powerful Hindu state and culture disappeared. Until 1835 the British continued to use the Mogul language of administration (that is, Persian) and in that way the Mogul Empire survived, at least in name, until 1858.

The use of legislation to institute social change began during the governor-generalship of Lord William Bentinck (1828-1835). Laws included the forbidding of suttee, as well as female infanticide, slavery and human sacrifice. Other changes included support of higher education institutions that used the English language. This was seen as a means of introducing a true understanding of the world and it was endorsed by such Indians as Ram Mohan Roy, also called Rammohun. He was a most distinguished Indian radical, attempting reform in Hindu customs and religion. In a sense he was an isolated forerunner of the anglicized upper class Indian, who subsequently became so important in Indian history. His influence helped to stimulate reform of Hindu laws and institutions. (Ref. [1](#), [2](#), [3](#))

Some regions of India deserve special attention. The Punjab in northwest India was

1/2 the size of France and was called the "Country of five rivers". It had been ruled through the centuries by Persians, Macedonians,

Mauryas, Scythians, Parthians, Huns and then the caliphs of Islam. The indigent people were the Sikhs, who recaptured the area from the Moguls. It was the granary of India, a feat made possible by an immense network of irrigation canals, which were early built by the British. In this century there were some 15,000,000 Hindus, 16,000 Moslems, and 5,000,000 Sikhs, living in about 18,000 towns. The language was Urdu. Before collapsing in 1849 the Sikhs gave the British red-coats their worst defeat on the Indian subcontinent at Chillianwala.

In contrast to the figures just given, the State of Bengal at the mouth of the Ganges, contained 35,000,000 Moslems and 30,000,000 Hindus, overall more people than in Great Britain, including Ireland. In spite of the religious divisions, all Bengali spoke the same language and came from the same racial stock, dating back to the pre-Christian era. The Moslems seemed to migrate to the east while the Hindus congregated in the west. The east grew almost no food at all, just jute, while the west grew enough rice for both.

To escape the dust and heat of the Indian summer, the ruling British established a summer retreat at the base of the Himalayas at Simla, a miniature Sussex hamlet, characterizing the complete separation of the ruling British from their subjects. Only three carriages were allowed in the entire community and the standard conveyance was a rickshaw requiring four coolies, almost all of which had tuberculosis. Indians were not even allowed to walk on the mall. (Ref. 4) Through various pressures, political unification was pretty well obtained and a modern state created by about 1855. The first steam vessel had arrived in 1826. By 1855 there were 2,500 miles of telegraph lines. Some generalizations of the impact of western rule are that trade and commerce responded to new conditions better than industry and that the creation of a market economy was important in political unification. Industry tended to remain in small enclaves entirely under western control, but through the century India had a favorable balance of payments because of the sale of jute, hides, oilseeds and wheat.

The British had a professional army of never more than 200,000 men and 2/3 of them were native Indians. Native revolts against the spreading East Indian Company, particularly the Sepoy mutiny of 1857, forced the British government to take over actual control of the country. This famous Sepoy revolt had to do with the new

Enfield rifle which was issued along with cartridges, which were coated with grease. The cartridge had to be bitten open before loading and the Indian Sepoys (many of high Brahmin Hindu caste) thought that biting fat of the sacred cow would throw them back down through many life times of struggle to get back up to their present level in the cycle of rebirth, while the Muslims in the units felt that if the fat were of the unclean pig, the situation was intolerable. The mutiny of the troops started at Meerut in the far north of Rajputana and resulted in 14 months of bitter fighting. Sikh loyalty to the British in the Punjab and indifference in the Deccan and south, turned the tide eventually in favour of the British. The most important consequence of all this was an abrupt change in the British management of India.

The East India Company was terminated by royal decree on August 12, 1858 and the British crown (Queen Victoria) took over. Ultimately 2,000 members of the Indian Civil Service and 10,000 British officers had authority over the 300,000,000 Indian people, helped only by 60,000 British regular soldiers and 200,000 native troops. The English, after fighting 111 wars in India, using Indian money and troops, completed the conquest of that land and then, with peace obtained, did establish railways, factories and schools as a token reward for their financial despotism.

There has been much criticism of British imperialism in India, but some of it has certainly been unjust. Although the British East India Company may have taken much wealth from India, there was plenty left for the 565 princes or maharajas of the same number of states which remained more or less self-governing under British jurisdiction. Those princes had an average of 5, 8 wives, 12 to 16 children, 9.2 elephants, 2.8 private railway cars, 3.4 Rolls-Royces and 22.9 tigers killed. Most had tremendous wealth in gold, silver and fabulous jewels, even if their subjects might be starving. The Sikh Maharaja of Patiala had a pearl necklace later insured by Lloyds of London for \$1,000,000, but his most intriguing item was a diamond breastplate composed of 1,000 brilliantly matched blue-white diamonds. The Maharaja of Baroda went about on an elephant with all the animal's equipment, such as the howdah, harness and great saddle cloth, made of gold, with 10 gold chains hung from each huge ear, each chain worth \$60,000. (Ref. [5](#), [6](#), [7](#), [8](#))

Throughout the century the Indian army fought almost

incessantly along the passes and peaks of the frontier with Afghanistan, at Landi Kotal and up and down the Kyber.

The enemy was cruel, Pathans like the Wazirs and Mahsuds, who finished off wounded prisoners with knives. Famine occurred through most of India in 1866 and again in 1877 and then periodically until 1899, although commercial agriculture flourished. When another episode of plague arrived in Bombay in 1898, within 10 years some 6,000,000 persons had died of it². The first all Indian political organization was founded in 1885 as the Indian National Congress and it soon developed an extremist wing, which began to question the aliens' right to rule India. This organization dominated Indian political and social thinking in the next century. Mahatma Gandhi was born in 1869. The Lancashire cotton famine in Britain, generated by the American Civil War, led to a cotton boom in the Deccan and thus to the development of regional crop patterns in India. Nepal got potatoes from America and this soon became the staple food of the Sherpas. (Ref. [9](#), [10](#), [11](#), [12](#))

Map taken from Reference 97

At the end of the century India was the second largest nation on earth with about five times as many Hindus as Moslems, several million Sikhs and about the same number of Christians, a few Parsis and still fewer Jews. The observation of the occasional contrast between Christian principles and the actual practice of Christians, left India skeptical and satirical and Christianity has converted only 6% of the Indian people in 300 years, as the Hindu religion has remained supreme. There were 15 official languages and 845 dialects. There was a leper population the size of Switzerland and enough beggars to populate Holland. Cholera was endemic but became general and violent throughout this century and even spread to Europe. A virulent form of tuberculosis had developed in the previous century and continued to ravage in this one. (Ref. [14](#)) There were still some many million aborigines, some like the Nagas of the far east Nagaland next to Burma, who still hunted heads until the middle of the 20th century. In the 19th century probably as many as 3,000,000 Indians migrated to other countries along the shores of the Indian Ocean, but they did not fuse well with local peoples and in the next century many had returned home. (Ref. [15](#), [16](#), [17](#), [18](#), [19](#))

After the 1830s there was a large migration of Indian Tamils to Sri Lanka to labor on the coffee, tea and rubber plantations. They

joined other Tamils whose Dravidian ancestors had arrived centuries before from the south of India. Most practiced Hinduism, in contrast to the majority Sinhalese of the island, who were Buddhists. The Tamils prospered under the British rule during the 19th century, but today, in the late 20th century, many are being deported back to India. (Ref. [20](#), [21](#))

[1](#)

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[2](#)

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[3](#)

[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, Freedom at Midnight. (Simon & Schuster, New York, 1975).

[4](#)

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[5](#)

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[6](#)

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[8](#)

[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, Freedom at Midnight. (Simon & Schuster, New York, 1975).

[9](#)

[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, Freedom at Midnight. (Simon & Schuster, New York, 1975).

[10](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[140] MCNEILL, WILLIAM H., *Plagues and Peoples*. (Anchor Press/Doubleday, Garden City, New York 1977).

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[260] BRAUDEL, FERNAND, *Civilization ~ Capitalism - Volume I, The Structures of Everyday Life*. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

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[37] COLLINS, LARRY AND LAPRERRE, DOMINIQUE, *Freedom at Midnight*. (Simon & Schuster, New York, 1975).

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[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[68] GARRATY, JOHN A. AND GAY, PETER, (Editors), *The Columbia History of the World*. (Harper & Row, New York, 1972).

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[108] JORDON, ROBERT PAUL. "Sri Lanka", *National Geographic* 155: 123, Jan. 1979.

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[260] BRAUDEL, FERNAND, *Civilization ~ Capitalism - Volume I, The Structures of Everyday Life*. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

1. Brother of the Duke of Wellington, who was Arthur Wellesley
2. Calcutta had suffered a cholera epidemic in 1817 and the disease spread overland with British troops to the northern borders, Afghanistan and Nepal. Previously this disease had been confined to Hindu pilgrimages along the Ganges. (Ref. 13)

The Far East

Geographical Presentation of The Far East

In general this region concerns most of the Pacific coast nations of Asia. The northern people of this area tend to be taller and heavier than the southerners. Language shows greater diversification, even within the confines of China proper, with the northerners speaking Mandarin (now the official language for all Chinese), while the southern Chinese primarily speak one of several mutually unintelligible dialects, including Cantonese, Wu and Fukien. Chinese, Thai and Vietnamese make up a language family which in turn is a branch of a language stock called "Sino-Tibetan". The "Tibeto-Burman" family is another division of this stock. In contrast, the Mongolians and Manchurians to the north belong to an entirely different "Altaic" language stock which includes Turkic, Mongolian and Tungusic (Manchu) language families.

In the text this sixth geographical area will be discussed under four main subdivisions.

CHINA AND MANCHURIA

This will not include China's more recent central Asiatic acquisitions, namely Sinkiang and Tibet, but will include Manchuria and classical China, which is about one-half the size of the continental United States and extends from the great Wall in the north, the inner Asian wastelands, and Tibetan highlands in the west, down to the Pacific on the east and south. It is divided transversely by the Qin Ling mountain chain into the northern Yellow river basic, the site of the earliest Chinese civilization, and the more southern Yangste, sub-tropical basin. (Ref. [1](#), [2](#)).

JAPAN

The land mass of all the Japanese islands together is smaller than the state of California. The question of the origin of the Japanese people and language will be developed in the text.

KOREA

The Mongoloid Korean people speak a language of northern derivation – Altaic rather than “Sino-Tibetan”, indicating their genetic relation to Manchuria, even though their culture has been and is very similar to that of the Chinese.

SOUTHEWEST ASIA

In certain time-frames in the manuscript this region will be further divided into [1] Mainland Southeast Asia and [2] Indonesia and adjacent islands. The latter classification will include the Philippines. The boundaries and peoples of mainland Southeast Asia are and have always been confusing. On the map, the current situation is indicated. Burma is shown with oblique lines while Vietnam has horizontal stripes. Cambodia is cross-hatched, while Laos is essentially black. Other countries are quite well labeled. The area listed as Siam is, of course, currently called Thailand.



Map 1.1: The Far East (This map was obtained from <http://english.freemap.jp/index.html> and is used with permission under a Creative Commons Attribution 3.0 license.)

1

[73] GORE, RICK, "Journey to China's Far West", National Geographic 157: 292, March 1980.

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

The Far East: Beginning to 8000 B.C.

THE FAR EAST

The famous "Peking Man", unearthed in northern China, lived some 500,000 years ago and his use of fire allowed him to live north of the frost line. He appeared to have a brain capable of speech, an erect posture and was a hunter and nut-gatherer. He was an intermediary stage of early man, evolved beyond *Homo habilis* who had spread across Eurasia and Africa, and was definitely related to the Java man (*Pithecanthropus robustus*). Both have shovel-shaped incisors, a characteristic of the modern Mongoloid race. After this early interglacial period, north China had a series of evolutionary changes with Neanderthal-like types and the fully matured Mongoloid *Homo sapiens* appearing perhaps 20,000 years ago. In the latter part of this period, parts of south China were occupied by pro-humans with some Negroid racial characteristics. All East Asian stone age people used a distinctive chop- ping tool that differed from the technology of prehistoric Europe and Africa. Does this mean a multiple origin of present day mankind?

About 12,000 years ago China progressed to ceramics and the beginnings of agriculture. This Yang-shao Culture is represented in more than 1,000 excavated sites in Honan and Kansu provinces, with hand-molded red, black and gray pottery painted with pigments. A hunting culture existed in central China at that time.

At 20,000 B.C. there were land bridges from China to Korea and from Korea to the southern tip of Japan and people could go freely across these areas. The first people to arrive in Japan, however, did so some 100,000 years ago and were pre-Mongolian Asiatics, similar to the aborigines of Australia today. They were wandering hunters with pale complexions and heavy beards of varying colors and degrees of curliness. For the next 90,000 years, during the last

of the Ice Ages, Japan was usually linked to the Asiatic mainland by the land bridges and island chains, so that Hokkaido was accessible to Siberia and Kyushu was accessible to Taiwan and Southeast Asia. With the melting of the glaciers some 10,000 years ago, Japan was cut off from the mainland and there were two surviving cultures, each with its own language - a Siberian one in the north, surviving today as Ainu, a distant relative of some tongue of the Siberian tundra, and the southern language, which has developed into modern Japanese. In the latter, some of the more ancient and basic words such as those for "mother", "father", etc., bear some slight resemblance to some Polynesian dialects and to some words of certain hill tribes of Malaya.

Pottery found in Fukin Cave, Kyushu, Japan has a radio-carbon dating of about 129700 B.C. and is considered to be the earliest in the world. The Jomon Period of Japan, with a hunting, fishing and gathering economy and the use of pottery but not metal, started about 12,000 B.C. and continued for the next 8,000 years. In this era Japan seems to have been isolated from China and had more in common with the Pacific Islands.

Java man, whose remains were found in the Brantas Valley of Java by Eugene Dubois, a Dutch doctor, in 1891, has been dated to 400, 000 B.C., and appears to be related to Peking man in China and has the same Mongoloid, shovel-shaped incisor teeth. Some 20,000 years ago there were land bridges all about the Malayan peninsula, through Sumatra, Java and Borneo and connecting all to the regions of present Cambodia and Vietnam, making the huge subcontinent called the Sunda Shelf. The people may have been the ancestors of present-day Negritos still occupying some remote regions of this area. Most were hunters, some lived in caves, and there were cultivated foods in Thailand as early as 10,000 B.C. There have been carbon datings of 9,750 B.C. of seeds of peas, beans, cucumbers and water chestnuts of the size and shape suggesting actual cultivation. If true, this was some 2,000 years before true agriculture can be proved in the Near East or Central America. About 250,000 years ago people may have walked across the then existing land bridge from the Malaysian peninsula and the Asian mainland to the Philippine Islands. The men there may have been akin to the Java and Peking men. Cave finds west of Mindanao show crude tools of 50,000 B.C. and in some areas there are better tools dating to 20,000 B.C. (Ref. [1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#))¹

1

Spirit Cave excavations have shown a variety of game - deer, pigs, monkeys, bamboo rats, otters, flying squirrels and from the sea - carp and crabs. Nuts, beans and melons were also available. (Ref. 8)

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[12] BERGAMINI, DAVID, Japan's Imperial Conspiracy" (Wm. Morrow & Co., Inc., N.Y., 1971).

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

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[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

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[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

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[297] PFEIFFER, JOHN, "At Ban Chiang a lost civilization comes to light", Smithsonian, Jan. 1933, pp. 98-107.

The Far East: 8000 to 5000 B.C.

THE FAR EAST

While there were probably many people in the Far East at this period, most remained in the Mesolithic stage. The Yang-shao painted pottery culture people of China lived in small villages of perhaps one hundred cottages, growing millet, keeping dogs and pigs and hunting with bows and arrows. They buried their dead and practiced fertility rites. Japan had the Jomon Culture, date of origin uncertain. The British Museum Guide lists it from 7,000 B.C. on but others believe it existed even at 8,000 B.C. or before. It was a distinct hunting, gathering and fishing society with a low-fired hand made pottery sometimes impressed with patterns made by twisted rope. The word "Jomon" means "rope patterns". There is some evidence that the people of this society were not the ancestors of the present day Japanese, but rather those of the Ainu, now pushed into the northern fringes of the islands by the later immigrants. The Jomon Culture was related to the southeast China traditions and to those of the Soviet Maritime Province and Kamchatka, but is not related to the Yang-shao (Ref. [1](#), [2](#), [3](#), [4](#), [5](#), [6](#))¹

¹
C. (Ref. [7](#))

In Southeast Asia people cultivated rice as early as 6,000 B.C. with evidence found in Spirit Cave in northern Siam. Mesolithic cultures have been identified in Vietnam, Siam and Malaya, with early cave sites excavated in Sumatra, Borneo and Cambodia. In Thailand, by 6,000 B.C., people used a wide variety of foods, with many of the plants domesticated. These included almonds, broad beans, betel

nuts, cucumbers, peas, water chestnuts and gourds, as well as rice. There was widespread distribution of mankind in New Guinea by 8,000 B.C. with a flake tool-chopper stone industry. Although some were already there by 6,000 B.C. more people began arriving in the Philippines by sea from Indonesia, Malaysia, Indochina and the Arab world. (Ref. 8, 9)

1

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

2

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

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[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[88] HAWKES, JACQUETTA, (Editor), Atlas of Ancient Archaeology. (McGraw-Hill Book Co. New York, etc. 1974).

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[297] PFEIFFER, JOHN, "At Ban Chiang a lost civilization comes to light", Smithsonian, Jan. 1933, pp. 98-107.

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[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

The Far East: 5000 to 3000 B.C.

THE FAR EAST

CHINA AND MANCHURIA

There was a Neolithic Yang-Shao culture in both central and western China with domesticated animals and cultivated millet, which reached a peak about 3,000 B.C. The Chinese are not a homogeneous people, and represent a medley of human varieties, different in origin, language, character, customs and government. The earliest Chinese city was Liang Ch'eng of the Lung-Shan Culture, dating to about 3,500 B.C. The inhabitants had great technical skill and a high level of organization and ritual. Prior to that the ancestors of the present Chinese civilization were developing an agricultural community around 4900 B.C. in the loess covered highlands of north and northwestern China, where the well drained soil of the river terraces was ideal for the early crops. The Lung-Shan Culture appeared on the lowland north China plain and eventually spread over all of China proper except the southwest, but it had many regional variations. Overall it was characterized by wheel made, unpainted, black pottery with a burnished, lustrous surface. The people lived in walled communities on the river plains, almost from Manchuria to Vietnam. They had rice as well as millet, domesticated cattle and sheep. Their religion emphasized ancestor worship (Ref. 1, 2)¹

¹

Ritual ceramics were made with the potters' wheel and the artisans were beginning to temper their wares during firing. (Ref. 3)

JAPAN

Neolithic societies only.

KOREA

Neolithic societies only.

SOUTHEAST ASIA

There is evidence of a bronze industry in Thailand by 3,600 B.C. and probably the tin came from Malaysia, which remains today the world's greatest producer of that metal. Wild rice was cultivated at Non Nok Tha, Thailand, by 3,500 B.C. Some excavations near the Loatian border at Ben Chiang show bronze weapons and wheels, carved ivory and pottery, all beautifully made. Sometime in this period Malayan people joined the first inhabitants of the Philippines and Madagascar. Hypothetically some of them could even have gone to Brazil around the south end of Africa (Ref. [4](#), [5](#), [6](#), [7](#), [8](#))²

²

[9](#)) describes a current exhibit at Ban Chiang, which has objects recently excavated from the Stone Age of 5000 B.C. to the Bronze Age, beginning at least by 3600 B.C. These excavations indicate settlement soon after 4000 B.C., with raised domestic stock and probably rudimentary rice cultivation. Unusual was the use of metals, not in an urban context, but in villages, in such things as spear points, axes and personal ornaments. They had beautiful pottery from 3600 B.C. on, and the culture, overall, lasted about 4,000 years. John Pfeiffer (Ref. [10](#)) confirms these findings and adds that 350 bronze bracelets, anklets, rings, axe and spear heads were distributed among about 2,000 other objects. The bronze seems to have appeared full blown without antecedent pure copper use. Whether this was brought in from the outside or developed locally is not known.

¹

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

²

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford

University Press, Stanford, California, 1975).

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[314] SANGRAW, CLARENCE, "Treasures from Shanghai", *Archaeology* 36.1, No.3: 60-63, May/June, 1983.

4

[155] NATIONAL GEOGRAPHIC SOCIETY, "Archeological Map of Middle America, *Ibid.* Oct. 1968.

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[215] THORDNDIKE, JOSEPH J., JR., (Editor). *Mysteries of the Past*. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

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[211] TANNAHILL, REAY, *Food in History*. (Stein & Day, New York 1973).

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[176] READERS DIGEST, *The World's Last Mysteries*. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[296] WHITE, JOYCE C. "Ban Chiang: Discovery of a Lost Bronze Age", *Archaeology* 36, No.1:52-55, Jan./Feb. 1983.

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The Far East: 3000 to 1500 B.C.

CHINA AND MANCHURIA

Chinese legends are bountiful with alleged records at least back to 3,000 B.C., all of which are not easy to substantiate. Excavations in Chekany province in central southern China have revealed a Neolithic Culture, the Yang-Shao, which we have mentioned previously, with painted pottery, dating to about 3,000 BC. The more wide-spread Lung- Shan, black pottery culture peaked at about 2,000 B.C. The legends describe a number of great emperors who taught the people marriage, music, writing, painting, fishing with nets, domestication of animals and the feeding of silk worms. Tradition has it that Empress Si-Ling, wife of the great Huang-Ti, discovered silk about 2,640 B.C. Brick structures may have been erected about 2,600 B.C. along with observations for the study of stars and the construction of a correct calendar. Chinese medicine allegedly began with the legendary Fu Hsi in 2,953 B.C. followed by Shen Nung, the Red Emperor (Hung-Ti), who compiled the first medical herbal material, the Pen-Tsao, about 2,800 B.C. He supposedly personally tested 365 drugs and drew up the first acupuncture charts. More famous is the great medical compendium, the Nei Ching (Canon on Medicine) allegedly developed by Yu Hsiung, the Yellow Emperor (Huang Ti), about 2,600 B.C.. This was transmitted orally until probably the 3rd century B.C. and was still later revised in the 8th century of the Christian Era. The Nei Ching deals with all phases of health and illness, prevention as well as treatment, including acupuncture. Tea, which grows wild in Manchuria¹, was cultivated there about 2,000 B.C. At first the Chinese merely chewed the leaf. (Ref. [1](#), [2](#), [3](#), [4](#), [5](#), [6](#))

From the middle of the third millennium B.C. the heart of the Yellow River valley was densely populated. It took a large and

disciplined force to drain and flood control this flood plain. A small type of pig was found in every hut and the ox-cart was known by 2,000 B.C. The horse and chariot came a little later with the horses similar to the wild Mongolian ponies with heavy heads and short legs. Foxtail millet and a small amount of wheat (spread from the west) were grown. Rice was cultivated much later, beginning south of the Yangtze², a foreign land, wooded, marshy and peopled with nomads of a different race. The first truly urban, known civilization in China was the Shang Bronze Age Culture of 1,700 to 1,600 B.C.. Hucker (Ref. 7) says the Shang monarchy emerged from the Honan branch of the Lung-Shan, black pottery culture and perhaps began as early as 1,176 B.C. Recent excavations at Loyang and Chengchow demonstrate progressive development from Lung-Shan into the ever more mature Shang. There urban development was about 1,000 years later than that in Mesopotamia and about 500 years after that in the Indus valley, so some elements from the west undoubtedly diffused to China. The last twelve of the Shang kings lived 273 years (beginning about 1,395 B.C.) in the An-Yang area at Yin-hsu (the ruins of Yin). The entire dynasty is sometimes called "Yin" after this capital. The Shang cities were large and had a high order of bronze technology and horse-drawn chariots as well as a fully developed Chinese writing system and a culture dedicated to war against the outlying "barbarians". Their bows had a 160 pound pull and could kill at 200 yards, a weapon later used by the steppe nomads and known to the westerners as the Turkish compound bow. Although traditionally the Shang was described as controlling most of northern China, actually it was probably a loose confederation of clans. The Huang-Ho society, on the Yellow River, had an ideographic script about 1,500 B.C. Wherever it appeared, writing in China is generally admitted to be the result of diffusion from the west. (Ref. 8, 9, 10, 11, 12)¹

¹

They made silk and created baskets. This was before the Shang period. (Ref. 14)

JAPAN

Peopled with Neolithic societies.

KOREA

There is archeological evidence of people on this peninsula in a Neolithic society by 3,000 B.C. (Ref. [15](#))

SOUTHEAST ASIA

Most of this area had peasant farmers and hunting groups and we know that bronze was used very early in Thailand. Iron objects seem to have been made there about 1,600 B.C. or even earlier. This was "wrought" iron, made by heating ore only to about 1,083 degrees Centigrade and then hammering away the slag from the iron globules. (Ref. [16](#), [17](#))

Waves of Stone Age people colonized the Indonesian islands from the mainland. An Austronesian people using Lapita pottery appeared in the Moluccas area of Indonesia sometime in this period, and they began to migrate slowly eastward. From about 3,000 B.C. on, the Malays in the Philippines were joined by a more advanced race from Indonesia. These two peoples merged, building up a tribal system known as the barangay. (Ref. [18](#), [19](#))

[1](#)

[38] COLUMBIA ENCYCLOPEDIA, 3rd Edition. (Columbia University Press, New York and London, 1963).

[2](#)

[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D., Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York 1978).

[3](#)

[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

[4](#)

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

[5](#)

[122] LEWINSOHN, RICHARD, Animals, Men and Myths. (Translated from German). (Harper & Brothers, New York 1954).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

14

[314] SANGRAW, CLARENCE, "Treasures from Shanghai", Archaeology 361, No.3: 60-63, May/June, 1983.

15

[113] KIM, H. EDWARDS, "Seoul: Korean Showcase", National Geographic 156: 770, Dec. 1979.

16

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

17

[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

18

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

19

[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

1. This tells something about the climate of Manchuria, in that tea cannot tolerate frost or drought
2. Trager (Ref. [13](#)) says the rice was brought from the Mohenjo-daro civilization about 2,300 B.C., but the source of this information is not given

The Far East: 1500 to 1000 B.C.

THE FAR EAST

CHINA AND MANCHURIA (Shang Dynasty until about 1,122 B.C., then Chou)

About 1,500 B.C. China passed abruptly from the Neolithic state to a full bronze age, probably getting bronze-working technique from the Near East or Thailand, as the Chinese scholars claim. China received its first farm-yard poultry as the domesticated jungle fowl from the Malayan peninsula. (Ref. 1) The first historical dynasty, the Shang, as noted in the last chapter, was a powerful political regime controlling most of northern China, even though in actuality it was a loose confederation of clan domains, many little more than village settlements. Two of their six capitals, at Cheng-chou and An-Yang, have been excavated, the latter showing a Black Pottery Culture. The people were basically Chinese, but some think that the aristocratic, charioteer warrior leaders may have come from farther west in the steppes. They used compound bows and bronze weapons. Fortifications dating to 1,300 B.C. along the Yellow River have evidence of these same warrior bands who may have originated on the Iranian plateau and moved step by step from oasis to oasis, conquering the Neolithic societies in their way. This was an aristocratic age with a sharp cleavage between noble warriors and helpless peasants. A recent newspaper article reports that Chinese scientists have uncovered the remains of 1,000 slaves killed as human sacrifices near An-Yang. Supposedly these were sacrificed for funerals or to honor the ancestors of the nobility, all demonstrating the extreme cruelty and barbarity of the slave-owning nobility of this Shang Dynasty. The religion was a mixture of ancestor and nature worship and their script was ideographic and strictly Chinese. About 1,200 B.C. iron was used in its meteoric

form and treated like a semi precious stone. It was of ten mounted in bronze fittings for ceremonial weapons. (Ref. 2, 3)

The concept of heaven dates to the beginning of this period, with the rulers traveling north to Mount T'ai where sacrifices were made, sacred music played and ceremonial dances accomplished. Shang-Ti (Lord on high), an anthropomorphic god, lived in heaven and watched over the actions of people and ruled the heaven of various spiritual beings who were considered to be ancestors. (Ref. 4)

In 1,122 B.C. or perhaps a little earlier, the Shang were overthrown by the Chou, a client people, possibly of different ethnic origin. Hucker (Ref. 5) says they were Chinese speaking people of Lung-Shan descent. The Chou, the Shang and the warrior charioteers mentioned above, all mixed, providing the biological prelude to the first true, historic civilization of the Far East. Toynbee (Ref. 6) calls this the original Sinic Society. Prior to the overthrow, the Shang had considered the Chou as semi-barbarians and "country cousins" but had finally conferred the title of "Chief of the West" on one of their leaders and had given him a Shang noblewoman as a wife. The Chou had probably early allied with and mixed with proto-Tibetan people called "Ch'iang", considered no better than animals at one time by the Shang. This idea of undermining Shang authority by making alliances with neighboring chiefs was conceived by a definite historical figure, King Wen, and when his son, Wu, came to power as king of the Chou, he built a new capital, Hao, near what is now Sian. Legend says that he then accumulated 50,000 troops and in 1,122 B.C. overcame a Shang army of 700,000. Apparently many of the latter were unhappy with the last Shang king and actually joined the Chou. Tradition also gives King Wu's brother, the Duke of Chou, great credit for laying the groundwork for the long-lived Chou Dynasty as he established seventy-one new administrative units and built a new city at modern Loyang to serve as an auxiliary capital. (Ref. 7, 8)

JAPAN and KOREA

These areas were both still in a Neolithic stage with farmers and gatherers.

SOUTHEAST ASIA

There is archeological evidence of the Somrong-Sen Culture spreading throughout all of Indo-China, including present day Vietnam, Cambodia, Laos, etc. This was a full Neolithic culture, with early bronze activity apparent about 1,000 B.C. in northern Viet Nam. H.O. Beyer found in 1948 that tanged and rectangular adz blades were used in the northern Philippines between 1,750 and 1,250 B.C. and nowhere else in Indonesia or Melanesia. The interesting sequel is that these are almost identical with those used much later throughout Polynesia. The route of this adz and the people using it from the Philippines to Polynesia can only be explained in one way according to Thor Heyerdahl - up the Japanese Current to below the Aleutians to the North American coast and then back into the Pacific. (Please see the Pacific section) (Ref. 9, 10)

1

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

2

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

3

[235] WICHITA FALLS TIMES, Wichita Falls, Texas, Apr. 29, 1977.

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[26] CHAN, WING-TSIT, "The Orderly Realm of Chinese Sages". Great Religions of the World. (National Geographic Society, 1978 Edition).

5

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

6

[168] PEI, MARIO. The Story of Language. (Revised Edition). (J.P. Lippincott Co., Philadelphia & New York 1962.

7

[168] PEI, MARIO. The Story of Language. (Revised Edition). (J.P. Lippincott Co., Philadelphia & New York 1962.

8

[101]. HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

9

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

The Far East: 1000 to 700 B.C.

THE FAR EAST

CHINA AND MANCHURIA (*continued Chou Dynasty*)

The leaders of the Chou Dynasty rewarded their aides by making them almost independent rulers of the many provinces into which the new realm was divided, thus setting the stage for a feudalism which eventually proved dangerous to government, but stimulating to Chinese letters and philosophy. At sometime during this period the Institutions of Chou was completed, detailing the duties and organizations of physicians. Hao, south of the Wei River, was the Chou capital until 771 B.C. when the last king of the Western Chou Dynasty was killed by a noble, as his capital was overrun by Northerners. A year later his son proclaimed Lo-Yang, south of the Yellow River in Honan, as his capital. This started the time of the Eastern Chou Dynasty, but the main functions of the king then began to be chiefly ceremonial, as the various area lords controlled their own sections. This feudal age was to last for some 500 years. It was different from European feudalism in that the Chou ruling class was principally unified by kinship ties and the king was considered as the head of a vast family. By 700 B.C. there were three powerful feudal states giving only lip-service to the Chou king. These were Ch'in in the old royal domain in Shensi, Chin in the north and Ch'i in the east. This subdivision of the Eastern Chou, which lasted over 250 years (722-481 B.C.) is called the "Spring and Autumn" era, after the name "Ch'un-ch'iu" which has the same meaning. (Ref. [1](#), [2](#))¹

¹

C. may have been a result of a Scythian cavalry raid from the Altai

region. The records of cavalry harassment from Mongolia are not clear until those of the 4th century B.C. (Ref. 3)

Although there were some 200 Chou statelets by the 8th century B.C. there were still many non-Chinese people about the borders who still had sometimes military and sometimes diplomatic contact with the Chou court. In the north were the "Ti", in the west and central uplands the "Jung", on the eastern coast the "I" and in the south all non-Chinese were lumped together as "Man". In the Yangtze delta region was a loose political entity called "Wu" and farther south a Yueh state.

From the philosophical standpoint, there was now a shift from the fear of spiritual beings to emphasis on human behavior and the groundwork was laid for the later humanistic thoughts of Confucius. Technically the Chinese also advanced and even built ice houses which were kept cool by evaporation. They developed a curved mouldboard plow which overturned the sliced sod, and was used continuously thereafter for rice cultivation. This advancement in agriculture was not used in Europe for another 1,400 years. (Ref. 4, 5, 6)

JAPAN

By the beginning of the first millennium B.C., the northern Ainu people had extended down to the central island of Honshu, while the southern aborigines, speaking a form of Japanese, led sedentary lives as shell-fish eaters. This situation continued until about 500 B.C. (Ref. 7)

KOREA and SOUTHEAST ASIA

These areas remained essentially as noted in the last chapter.²

²

C. This suggests the beginning of centralization in that region. (Ref. 8)

¹

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford

University Press, Stanford, California, 1975).

2

[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D.,
Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York
1978).

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[279] MCNEILL, WILLIAM H., The Pursuit of Power. (University of
Chicago Press, 1982).

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[26] CHAN, WING-TSIT, "The Orderly Realm of Chinese Sages". Great
Religions of the World. (National Geographic Society, 1978 Edition).

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[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York
1973).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ.,
New York, 1979).

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[12] BERGAMINI, DAVID, Japan's Imperial Conspiracy" (Wm. Morrow
& Co., Inc., N.Y., 1971).

8

[297] PFEIFFER, JOHN, "At Ban Chiang a lost civilization comes to
light", Smithsonian, Jan. 1933, pp. 98-107.

The Far East: 700 to 601 B.C.

THE FAR EAST

CHINA AND MANCHURIA (*Continued Chou Dynasty*)

The many provinces of early China gradually coalesced into five states covering what is now the district of Honan and some adjacent areas. The most important provinces were T'si, where the basic type of Chinese government developed, and Chin (or Tsin), which gave to China the name by which it is known to nearly all the world but itself. The organizing genius of T'si was Huan Chung, adviser to the Duke of Huan (683-640 B.C.). As prime minister, Kuan Chung replaced bronze with iron weapons and tools. Cast iron was used either in this century or the early 6th B.C., some 1,000 years before it was used in Europe. Sophisticated kilns developed for firing ceramics laid the foundation for this, in reaching the very high temperatures (1,835 degrees centigrade) necessary. T'si became a well ordered state with a stable currency and efficient administration. A code of manners, ceremonies and a sense of honor was developed and served as a substitute for religion among the upper classes. Extensive canals irrigated fields and agriculture and the silk industry prospered. Huan Chung taught the farmers to dig drainage ditches, stored surplus grain and rented farm equipment for them. (Ref. 1) Carts were used, leather shoes were worn, and houses were well built, with tables and chairs available. In the early years of the Spring and Autumn Era of the Eastern Chou, warfare was really more of a polite gamesmanship with very limited real fighting and few people hurt or killed. The art of diplomacy was supreme. (Ref. 2, 3, 4)

JAPAN

Three elements appear to be mingled in the Japanese race: A primitive white strain through the Ainus, who seem to have entered Japan from the region of the Amur River in Neolithic times; a yellow Mongol strain, coming from or through Korea in this 7th century B.C.; and a brown-black Malay and Indonesian strain, filtering in from the western Pacific islands. Gradually a new race developed from this 7th century on. In the Japanese mythology, 660 B.C. dates the legendary first emperor, Jimmu.

KOREA AND SOUTHEAST ASIA

Neolithic societies continued as previously, with metal in use in Thailand.

1

[222] TRAGER, JAMES, *The Peoples Chronology*. (Holt, Rinehart & Winston, New York, 1979).

2

[45] DANIEL, GLYN (Consulting Editor), *Encyclopedia of Archeology*. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

3

[46] DURANT, WILL, *The Story of Civilization*. (Simon and Schuster, New York). Part I - *Our Oriental Heritage*. (1954).

4

[101] HUCKER, CHARLES O., *China's Imperial Past*. (Stanford University Press, Stanford, California, 1975).

The Far East: 600 to 501 B.C.

THE FAR EAST

CHINA AND MANCHURIA (Chou Dynasty, continued)

Although China was nominally still under the Chou Dynasty actually it was essentially in a feudalistic age called the Spring and Autumn period. A unique institution of this period was the hegemon (pa) which was rule by a yearly conference of dukes from the three powerful statelets, offsetting the ineffectiveness of the Chou king. From 600 B.C. on the peasants made real progress in farming the flood plain of the Yellow River, by shifting from millet to rice. Vast diking, draining, canalization and engineering control was necessary to create an unbroken carpet of rice paddies. The amount of labor involved in all this is almost unbelievable. Rice, originally a dry land crop, still requires good oxygenation of its roots and the waters of the paddies cannot become stagnant but must be regularly circulated, necessitating constant attendance to pumps and various hydraulic systems. Farther south the Yangste Valley could not be farmed satisfactorily at that time, even though the river was much less wild and geologically less difficult, because the warmer, wetter climate allowed a great variety of parasites. Malaria may have been one of the worst, along with dengue fever and schistosomiasis, which has been definitely identified in a later, second century corpse. (Ref. [1](#), [2](#), [3](#))

This was the age of Lao-Tzu, the greatest of the pre-Confucius philosophers. His identity is disputed, but at least the Taoist philosophy became prominent with "Tao" meaning "The Way". Basically this was a way of thinking or refusing to think, for in the view of Taoists thought is a superficial affair, good only for argument and more harmful than beneficial to life. The Way is to be found by rejecting the intellect and all its errors and leading a

modest life of retirement, rusticity and quiet contemplation of nature. Knowledge is not a virtue but on the contrary, rascals have increased since education spread. The worst conceivable government, in this philosophy, would be by philosophers themselves, as they botch every natural process with theory. Silence is the beginning of wisdom. Disregard of the Tao led to illness, not so much as punishment for sin as the inevitable result of acting against natural laws. Taoist philosophy became the religion of a considerable sized minority of the Chinese from this century down to our own time. Confucius, of the impoverished but noble K'ung family, was born in 551 B.C. and it is said that he had some contact with and learned from the Old Master, Lao-Tze. His teaching will be discussed under this same heading in the next chapter. The standard of living in China at that time was probably higher than in the contemporary Greece of Solon. (Ref. 4, 5)

JAPAN

The Jomon Culture hunting and fishing society of Japan continued through this century.

KOREA

The Neolithic societies of Korea continued as in the previous centuries.

SOUTHEAST ASIA

The people who now occupy southeast Asia began at about this time to leave their ancestral homes in southern China and Tibet and start their migrations southward, displacing or absorbing the aborigines of the area.

1

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[140] MCNEILL, WILLIAM H., Plagues and Peoples. (Anchor Press/Doubleday, Garden City, New York 1977).

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[259] MAC NEISH, RICHARD STOCKTON, "Food Production & Village Life Developed in the Tehuacan Valley, Mexico", *Archaeology* 24: 307-315, Oct. 1971.

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[46] DURANT, WILL, *The Story of Civilization*. (Simon and Schuster, New York). Part I - *Our Oriental Heritage*. (1954).

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[260] BRAUDEL, FERNAND, *Civilization ~ Capitalism - Volume I, The Structures of Everyday Life*. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

The Far East: 500 to 401 B.C.

THE FAR EAST

CHINA AND MANCHURIA. (CONTINUED CHOU DYNASTY UNTIL 403 B.C.)(THE FOURTH GREAT CENTER OF CIVILIZATION)

The early century was the productive time of K'ung Ch'iu, known to us as "Confucius"¹ and one of the great philosophers of all time. He taught no system of philosophy, merely how to think. He was essentially an agnostic, but made a heroic effort to make men decent. The rules of propriety and ways of living which he laid down in his five "Ching" or Canonical Books were, however, a sort of strait-jacket preventing change in the centuries to come. His was a prim and Puritanical way, without any place for pleasure and little for friendship and love. Nobility was a matter of education and conduct. Confucian gentlemen ruled China for over two millennia and through most of that time gave a remarkable stability and coherence to Chinese culture and politics.

Another philosopher, Mo Ti, appeared in the last half of the century, teaching an opposite doctrine of universal love and peace. Although China had known and used iron for some purposes for centuries, only in this century can it be said that the country really entered the Iron Age, at approximately the same time as Scandinavia, Britain and Ireland.

During this century the political climate of China changed. The state of Chin became weak and was divided, leaving Ch'in, Ch'i and Ch'u as the dominant powers nominally under the Chou Dynasty. Warfare became less gentlemanly and states now went to serious battle, with the period beginning in 403 B.C. thereafter called the "Warring States era". The crossbow and iron weapons were introduced and added to the deadliness of war. Cast metal coins

came into use not later than this century. (Ref. 2)

In Chinese medical diagnosis, the feeling of the pulse has always been of primary importance and they have felt that interpretations of this could reflect the condition of each internal organ. A pulse chart was originally written in this or the preceding century by Pien Ch'iao. Exercise, massage and complex combinations of food to get proper relation of yin and yang were as much a part of treatment as medicines, although there were eventually some two thousand items in their pharmacopoeia. (Ref. 3)

JAPAN

At about 500 B.C. the southern aborigines of Japan began to be replaced by the Mongolian type of people associated with modern day Japan. Traces of the southern aborigines' curly hair, gray eyes, brown or even red beards, may still be found in upland valleys, but their chief contributions to modern Japan was their language. The newcomer Mongolians apparently just drifted in by raft, canoe or boat and each group learned to speak the existing native dialects, while they gradually brought in improved stone techniques, thatched roofs, potters' wheels² and new agricultural ideas. Such arts seem to have allowed the newcomers to survive and multiply to the extent that they could push the aborigines back into the hills. (Ref. 4)

KOREA

Continuation of Neolithic societies.

SOUTHEAST ASIA

Continuing the centuries-long migrations from the north, some people settled in Vietnam and Cambodia, becoming the Chams and Khmers; some in Burma and east Thailand becoming the Pyus and Mons; some in the long peninsula becoming the Malays. Others took to the sea, spreading throughout Indonesia and eventually Melanesia. The Bronze Age began here about 500 B.C. with some evidence of the use of iron in central Siam (Thailand). We have noted before that there may have been bronze in Thailand three millennia previously and we must assume that the Siamese were far

more advanced in metallurgy than their neighbors. (Ref. 6) Metal was used widely in the Philippines by 500 B.C. and there was a spread of agriculture, involving rice and millet. (Ref. 7)

1

[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[101] HUCKER, CHARLES O., China's Imperial Past. (Stanford University Press, Stanford, California, 1975).

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[12] BERGAMINI, DAVID, Japan's Imperial Conspiracy" (Wm. Morrow & Co., Inc., N.Y., 1971).

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[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

7

[153] NANCE, JOHN, The Gentle Tasaday. (Harcourt Brace Jovanovich, Inc., New York 1975).

1. "Confucius" is the Latinized version of K'ung fu-tzu, the latter word being a superlative variation of "tzu", meaning "master", - thus "Master K'ung". (Ref. 1)
2. The British Museum Guide (Ref. 5) states that the Mongolians did not introduce the potters' wheel into Japan until about 300 B.C.).

The Far East: 400 to 301 B.C.

THE FAR EAST

CHINA AND MANCHURIA (Warring States Period of the Chou Dynasty)

The "Warring States" period continued, with chaos, corruption and division of the country. Even so, in the midst of this there was a profuse development of philosophies with rabid intellectual discussions as in earlier Athens. Mencius was a successor to Confucius who re-stated the latter's views and modified them so that he contributed greatly to the survival of Confucianism. Very different although not incompatible with Confucianists were the Legalists, who believed man basically bad and therefore must be curbed by stringent laws. The Naturalists had introduced the Yin (female) and Yang (male) principles which persist in Chinese thought even today. Taoism was expanded in this period to say that everything in a material world was relative, and that concepts existed only as contrasts. Eleven cities were considered to be very large, including the Ch'i capital, Lin-tze, consisting of 70,000 households, in modern Shantung province. By 325 B.C. regional lords had begun to call themselves "kings". Chopsticks were used in China at least by 400 B.C. Although Chinese tradition teaches that irrigation practices were still more ancient, it was in this and the next century that they were used on a large scale, along with intensive land clearing and the necessary hydraulics. (Ref. [1](#), [2](#), [3](#))

The marshy coastal districts did not lend themselves to charioteering so the infantry armies of the southeastern states of Wu and Yueh began to dominate the battles; chariot fighting declined and by 300 B.C. there were infantry masses in the hundreds of thousands. But in the far west and north, the non-Chinese nomads had developed cavalry for new assaults on China.

(Ref. 4)

It is said that about 329 B.C. a Chinese general conquered the Tien Kingdom of Yunnan and settled there, introducing the Chinese culture to this region although it did not come under direct Chinese control until the 7th century C.E.. Recent excavations have shown a Bronze Age culture there with some indication of the use of iron. The art of the Yunnan people, including animal drawings, seems related to the people of the steppes of Asia. (Ref. 5, 6)

JAPAN

The Jomon hunting and fishing culture continued, with a mixed population, as indicated previously. (Ref. 7)

KOREA

No new information available for this century.

SOUTHEAST ASIA

The peoples of Southeast Asia had developed a complex agricultural civilization by this period, growing chiefly rice but also domesticated tubers and legumes, especially yams¹. Their work animals were the ox and water buffalo. Bronze was not used in Vietnam until this century, although it had been used in Thailand for some 3,200 years and in China for 900 years. The reason for the slow spread of the metal is unknown. Burmese cotton was the best in the world and was exported in large quantities to India. (Ref. 8, 9)

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1. This refers to large tuberous roots of the climbing vines of the genus Dioscorea and is not the same plant as the sweet potato of America which is sometimes called a "yam" but is the root of the Convolvulaceae family

The Far East: 300 to 201 B.C.

THE FAR EAST

CHINA AND MANCHURIA (Warring States period of Chou until 221, Ch'in to 207 then Han from 202 B.C. on)

Two fundamental Chinese social aspects had become apparent by the end of this Formative Age of the early dynasties:

(1) The concept of the patrilineal family as the basic unit in society, with blood kinships of the highest importance and (2) the concept of natural differentiation into classes, each regarded in proportion to their contributions to the whole society.

In Shang times slavery had been common with the slaves being war captives or criminals, but this decreased with the Chou Dynasty and finally disappeared as social status became more fluid and transitory. With the disappearance of the early feudalism, free-hold farming became the dominant food support in the small amount of arable land available.

As population had greatly increased, there was no longer room for grazing herds and the Chinese had settled for scavenger-breeding animal husbandry consisting of plow oxen, pigs, chickens and occasionally dogs. Nomads first started bothering northern China in earnest in this century. The nomads were all milk-drinkers and still had the necessary lactose for digesting that in their physiological make-up, while most Chinese didn't have that enzyme after infancy because of the long scarcity of milk-giving animals. Yet today, Chinese as a whole find milk indigestible because of this lack of lactose and the classical Chinese have considered milk products unclean or tainted since 2,000 B.C. Yogurt, curds or cheese can be eaten, however, because the lactose sugar has been broken down. Stir fry cooking developed on the flood plains as a result of the very limited fuel supply, using wafer thin fragments of meat and

vegetables which cook in minutes. Another innovation can be seen when a basic bean is taken through several processes and allowed to ferment in a loaf in a dark area over winter - then the fungus is scraped off and the leaves are soaked in brine. The briny liquid, when strained off, is "soy sauce". The debris of the loaves is made into a thick "cheese", now partially blamed for the high incidence of stomach cancer in Asia. (Ref. [1](#), [2](#))

Early in this century (as continued from the last) the Confucian principles were kept alive and elaborated for posterity by Master Meng K'o, Meng-tzu (Latinized - "Mencius") an extravagant, arrogant aristocrat who nevertheless recognized that public morale should be the first concern of every ruler and he did not hesitate to tell them so. But perhaps the greatest Confucian thinker of the century was Hsu~n-tzu. a ruthlessly tough-minded rationalist who set down his philosophy in a well organized book. In addition, the present form of the Lao-tzu, the Taoist philosophy, was made in this century with authorship really unknown. It has been called the most profound and beautiful book ever produced by the Chinese and has been translated into English more of ten than any book except the Bible. Its meanings, however, can still be elusive and debatable. (Ref. [3](#))

The era of Warring States continued until 230 B.C. when Shih Huang-ti began a campaign of conquest and unification of China which was completed by 222 B.C., establishing the Ch'in Dynasty. Coming from the Wei Valley, a true frontier country, the leader adopted this title of Huang-ti, meaning "August Lord", but usually translated "Emperor", and "Shih" simply means "first". He began as King Zheng of Qin at thirteen years of age, when the country was initially ruled by the chancellor, Lu Buwei. This First Emperor built the Great Wall of China, one of the greatest construction feats of all time, to protect the nation against barbarians. Seven hundred thousand forced laborers were used in building the wall and thousands of them died, crushed beneath some of the massive gray rocks. The wall was roughly 1,500 miles long and wide enough for six horses to gallop abreast along the top. The nation's first standing army, consisting of perhaps millions, was created to guard the wall from northern invaders and it did discourage the Huns, who then turned west into Europe.

Shih Huang-ti spent thirty-six years building a subterranean palace in which he could spend eternity and used seven hundred

thousand conscripts to build this, also. Recent excavations of his tomb indicate that a guardian army of six thousand life-size pottery men and horses were constructed to stand eternal guard at his tomb. In addition, however, he did build great highways and encouraged science while discouraging letters and especially Confucian scholars. He buried 460 of the latter alive. China was divided into provinces with civil and military officials in a hierarchy of ranks; writing was standardized and there was an elaborate postal system and a great irrigation system in the Chengtu region of Szechwan. It was the Chinese written language in ideographic characters whose meaning is totally unrelated to local variations in pronunciation and spoken dialects, and which can therefore be understood throughout, that provided an important unifying instrument, even in the south which was occupied by people of non-Chinese origin.

The Yangtze Valley and other southern territories, although under political domination by the Chinese, could not be fully incorporated into the Chinese social structure because of disease barriers¹. Huang-ti did build the Ling Canal, joining the Yangtze River basin to the Canton area via the Li River, and this canal helped supply one-half million Chinese troops conquering the lands to the south. The canal is now used chiefly for irrigation. In the countryside south and west of the canal one-third of the people even today belong to minority groups such as the Zhuang, considered barbarians by the Hans.

Following the death of the First Emperor, disorder and civil war broke out, with nature adding its bit by floods and droughts. Shih's son was killed and chaos reigned until Koa-tsu, a petty official, turned general and emerged as the supreme ruler and founder of the Han Dynasty in 202 B.C.. The Formative Age of China had ended.

Huang-ti is generally regarded as the author of the canon of internal medicine called "NeiChing", but this may have originated much earlier. This work says that the blood current flows continuously in a circle and never stops. It describes acupuncture with needles from 1" to 10" long, a system which is still used to restore the balance of Yin and Yang in the body. It was in this century that iron weapons finally became common in China almost a thousand years after its use in Thailand and in the West, although the metal had been introduced some two centuries before. An

interesting point is that when the Chinese did start to use iron it was cast, rather than wrought iron, and cast iron requires a heat of 1,400 degrees Centigrade at which temperature the iron melts and the slag is drawn off, allowing the molten iron to be poured into molds, like bronze. From the beginning the Chinese smiths knew only this method, and the heat required, which needs some type of blast furnace, was not produced in the West until many centuries later. (Ref. [5](#), [6](#), [7](#), [8](#), [9](#), [10](#), [11](#))¹

¹

That variety of nephrite is considered the only true jade. Jade veils have been found in several aristocratic burials of the late Eastern Chou period (770 up to 256 B.C.) in Luoyang. (See also Additional Notes in 1st century C.E.) Iron battle suits came into use in this century or earlier. (Ref. [12](#))

JAPAN

About 300 B.C., a new wave of Mongoloid immigrants from the mainland introduced rice culture, bronze, and if it was not already there, the potter's wheel to Japan, beginning the Yayoi Period. Although Chinese rulers had kept the seri culture secret until this century it now came to Japan, perhaps through Korea. (Ref. [13](#), [14](#)) Bergamini (Ref. [15](#)) states that in addition to the bronze and rice, traders brought in iron at this time.

KOREA

The Korean people are related racially, linguistically and culturally to the ancient peoples of Manchuria and Siberia as well as to the Japanese, but their post-Neolithic civilization came largely from China. In this century, among several existing states, the most civilized was Chosen, a semi-sinicized community in the northwest. (Ref. [16](#))

SOUTHEAST ASIA

Distinctive, massive, bronze drums decorated with images of animals and men date to 300 B.C. at Dong Son (North Vietnam).

From the study of material in the National Archeological Museum in Tripoli, North Africa, Barry Fell (Ref. 17) writes that inscriptions copied from a cave in northwestern New Guinea in 1974 appear to be the work of a Libyan navigator who signed his name M-W (Egyptian "Mawi" means "navigator") sounding like Polynesian "Maui". The date of the New Guinea inscription was "the 15th year of Ptolemy III of Egypt" or 232 B.C. Further comments regarding the possible significance of this finding will be given in the next section. In 218 B.C. the Chinese Huang-ti, in his conquests, took over the Red River delta area (now Hanoi and Haiphong) and brought strong Chinese influences as well as Chinese blood to this area.

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1. Even at the time of the "Flying Tigers" of World War II, General Chenault wrote that cholera, malaria, typhoid and other lesser known diseases plagued the people of this area. (Ref. 4)

The Far East: 200 to 101 B.C.

THE FAR EAST

CHINA AND MANCHURIA (The "Former" Han Dynasty continued)

As briefly noted in the last chapter, between 206 and 202 B.C. Kao-tsu, a condot-tier, had seized the throne of China and founded the Han (Western or Former) Dynasty. Freedom of speech and writing was restored and a laissez-faire style of governing allowed prosperity and population growth. Although Kao-tsu died in 195 B.C. his wife and descendants ruled conservatively through the first half of the century. Taxes were cut markedly, but still the state granaries were full and the government had vast cash reserves. The greatest Han emperor was Wu-Ti, who in the last half of the century pushed back invading barbarians and extended China's rule over a vast territory, including Korea, Manchuria and even part of Turkestan. This western territory (Tarim Basin and the Turf an Oasis) was obtained by war against the Hsuing-nu, the tribal federation of central Asia that had developed along with the Chinese Empire and which had previously raided China as well. The western area became important because of the Chinese Silk routes to the West. Even by this century the Chinese had become very active in the silk trade, starting caravans at Paochi, moving along inside the Great Wall to its western end, then across Chinese Turkestan, then either north or south of the Tarim Basin, through the Pamir Mountains to Merv. The silk road had not functioned well before the time of the protection of the Chinese Hans, because of the nomad pirates.

Wu-ti experimented with socialism, founding great government industries, transportation services, deliveries and miscellaneous services, developed governmental control of prof it and levied a 5%

income tax. He made Confucianism official and the Confucian classics were reassembled and transcribed. Through his conquests, south and west, contact was made with the Indian cultural sphere. This was accomplished by sailing 3,000 miles south through the straits of Malacca around the Malayan peninsula and the 1,200 miles across open seas to the Indian shore near what is now Madras. Seasonal monsoon winds were used for power on both the original and return trips, in different seasons. Chinese ocean-going junks had a much better sail arrangement, better cargo and cabin space and many other features unknown to western ships for many hundreds of years in the future . Cowrie shells, the first Chinese money, probably came from the far away Maldives Islands. The Chinese ambassador, Chang Chien, spent more than ten years in the middle east, gathering information on drugs, viticulture and many other subjects. Sometime during this Han Dynasty a noted clinician, Tsang Kung, described many diseases, including cancer of the stomach, aneurysm and rheumatism. (Ref. [1](#), [2](#), [3](#), [4](#), [5](#), [6](#))¹

¹

C.) the use of jade burial suits for the aristocrats came into its own. The tomb of Liu Sheng, Wu's brother, provides the best early example of this type of jade burial shroud. (Ref. [7](#))

JAPAN

Megaliths, similar to the ancient ones of Europe, appeared in this century throughout Japan and they continued to be built for the next eight or nine centuries. Strangely none appeared in China. This was the beginning of the Yayoishiki Culture period in Japan, but the people were still in a neolithic stage. These inhabitants, who now began rice cultivation, weaving and the use of metals such as bronze and some iron, may all have been immigrants from Manchuria and perhaps Korea, replacing the more native aboriginals of the Jomon period. They definitely had some relationship with Korea. (Ref. [8](#), [9](#))

KOREA

The state of Chosen continued to prosper. Near the end of the

century at about 108 B.C. an alliance of the Koreans with the Hsiung-nu provoked the Chinese emperor, Wu-ti, who promptly sent troops and established an Han colony at Lo-lang, near the modern P'yongyang. (Ref. 10)

SOUTHEAST ASIA

Much of the mainland area of southeast Asia was now controlled by China with north Vietnam being subject to the Chinese for the next 800 years. But there was also foreign influence from India. Development of seafaring in the Indian Ocean and the China Sea allowed the people of the Ganges, already tolerant to tropical parasites, to implant Indian court culture along the river valleys and islands of southeastern Asia, even in Indonesia. In spite of the tremendous geographical area involved, however, powerful civilizations did not develop, probably because of the attenuating effects of malaria, dengue and waterborne infections of the gastrointestinal tract. The use of iron spread from Siam to Borneo and Palawan by about 200 B.C. (Ref. 11, 12)

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The Far East: 100 B.C. to 0

THE FAR EAST

CHINA AND MANCHURIA (“Former” Han Dynasty continued).

At its peak the Han Empire under Wu-Ti was exceedingly prosperous, rivaling Rome both in size and wealth. The capital city Ch’ang-an had 250,000 in a total population of about 57,000,000. While the progress of mechanization was impeded in Greece and Rome by the number of available slaves, China had too many efficient coolies. (Ref. 1). We noted above that Wu-Ti expanded into the Tarim Basin in the west by defeating the Hsiung-nu and this pursuance continued even after Wu-Ti’s death. In 61 B.C. the chieftain of the southern Huns came to Ch’ang-an to submit as an Han vassal, while the northern group continued to be chased far westward into Samarkand, there to be finally defeated by a five-pronged Han force in 36 B.C. But in China proper the economic controls lapsed and nepotism and cronyism resulted in the loss of the imperial family’s power.

A type of national university had come into existence to prepare men for bureaucratic careers and by the end of the century the enrollment had reached 3,000. In the Han militia system all males registered for military service at 21 years of age and were eligible for service between the ages of 23 and 56 years. Allegedly every male was to have military service in his home county one month every year and one year of continuous service sometime in a guard unit, but soon a practice of paying poorer men to serve one’s time became standard practice. In addition to using cowrie shells as currency, copper coins, later called “sapekes” by the Europeans, came into use. Both of these competed with salt and grain as a medium of exchange. (Ref. 2). In this century the Chinese drilled

deep holes, presumably for water, in Szechwan and their drilling methods were copied centuries later in the United States. (Ref. 3)

In early China the laws required punishments and torture that equaled that seen in Europe at a much later period. Death penalties were carried out by beheading or by chopping the offender in two at the waist. In cases of treason or some equally serious crime, all the offender's relatives might also be put to death. Lesser offenders might simply be mutilated by tattooing, amputation of nose or feet or castration. Imprisonment was rare, but hard labor on government construction was used for minor offenders. In Emperor Ch'eng's reign (32-7 B.C.) authority was delegated to his mother's family, the Wang clan. Ssu-me Ch'ien was a great Chinese historian of this era. (Ref. 4, 5).

In Manchuria a new state of koguryo was founded in this century and soon also included northern Korea.

JAPAN

The Yayishiki Culture continued into this century with rice culture appearing about 100 B.C. Animism and totemism, sex and ancestor worship satisfied the religious needs of these early Japanese. Out of the latter worship came the oldest official living religions of the nation – Shinto. This faith, called the Way of the Gods, took three forms; the domestic cult of family ancestors, the communal cult of clan ancestors and the state cult of the imperial line with its founding gods.

A Mongolian castaway group on Kyushu multiplied so rapidly as farmers that they took over all the arable land on the island and while some of the aborigines became serfs, others took to the hills from where they continued to raid the farmers for centuries. The new Kyushu community was organized as a loose confederacy of villages, each ruled by its own matriarch or fertility mother, and the woman leader of the most powerful town was called the "Sun Goddess". Early Chinese traders called her "Pime-ko", or "Hime-Ko", meaning "Sunshine Child". (Ref. 6, 7, 8). In an attempt to obtain more sea-food to feed the expanding populations, a great ship-building effort was made in 81 B.C. (Ref. 9).

KOREA

Most of Korea was controlled by the Han Chinese at this time, but the northern portion was allied with Manchuria in the new state of Koguryo.

SOUTHEAST ASIA

Already controlling North Vietnam, the Chinese now added central Viet Nam to their territory which they were to maintain for centuries. No other significant changes occurred.

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The Far East: 0 to A.D. 100

THE FAR EAST

CHINA AND MANCHURIA ("Former" Han to A.D. 9, Hsin to A.D. 25, then "Later" Han)

At the beginning of this century China's population was just short of 60,000,000. Interrupting the Han Dynasty, the Wang clan was acting as regents for a boy emperor and the last of these regents, Wang Mang, gradually outmaneuvered all opposition until by A.D. 9 he could declare the Han Dynasty defunct and take the throne himself. Even so, he was the highest type of Chinese gentleman and promoted many improvements for the country, including the abolition of slavery and the redistribution of some very large, landed estates among the peasants. He continued state monopolies of salt and iron and added other state ownerships. As of ten happens with such planned economies, however, some natural calamities, including a series of poor harvests, drought in the Shensi basin and a series of breaks in Yellow River dams resulting in vast flooding with changes in the river's course and thousands of drowned and homeless people, upset everything, revolts broke out and he was killed (A.D. 25). Things reverted to the previous situation and the rule fell to a scion of the House of Han, inaugurating the "Later" Han Dynasty which was to last until A.D. 220. It was this dynasty which helped to defeat the Hsuing-nu as detailed under Central Asia. The restorer of this Han Dynasty, Kuang-wu-ti, moved the capital to Loyang in Honan and thus the term "Eastern Han" is sometimes used as synonymous with "Later" Han. Kuang-wu-ti at the same time allowed a group of southern Hsuing-nu to settle in northern Shensi and Shansi provinces. He and his immediate successors were vigorous, conscientious rulers and the population and economy rapidly rebounded.

The Han emperors sent soldier-farmers to the far western extensions of the Great Wall in the region of present day Jiayuguan, to secure their frontier, even as the Communists have done recently. They watered the desert by building irrigation systems to bring down mountain snow-waters, set up mulberry plantations for silk worms and prospered. This was on the original southern silk route. The Chinese preferred to let others do their hauling and in these centuries silk either went over-land on the silk route or to India in Indian boats and from there on in either Indian, Greek or Arab vessels. (Ref. 1, 2)

The year 67 marks the coming of Buddhism to China. The first known manufacture of paper dates to about A.D. 100. In this century these far easterners used power drive bellows and blast furnaces, such objects not seen in Europe until the Middle Ages. The principle of the compass was also known in China at this time and was used on Chinese ships long before it appeared in the west. (Ref. 3)2

2

D. 58-76) (Ref. 4)

JAPAN

At about the time of Christ the current Sun Goddess (See preceding chapter) allied herself with a marauding pirate trader from Karak, Korea (modern Pusan) and later arranged for him to marry her granddaughter. A son and grandson of this marriage ranged widely up the Inland Sea, exploring and provisioning along the southern Honshu coast.

When the grandson, Jimmu, became of age, he moved his entire pirate fleet - ships, warriors, women and utensils away from the matriarchal Kyushu across to Honshu, at what is now Osaka. Because the local southern aborigines there needed help against the hairy Ainu hunters from the north, they welcomed Jimmu's warriors who also found an iron ore with the right impurities for making steel. Within a few generations Japan was in the steel age, making the finest blades of the world. After three years of campaigning, about A.D. 501, Jimmu proclaimed himself Emperor of an area which includes present day Osaka, Kobe and Kyoto, and he called this "Yamato". Jimmu was the present day Emperor Hirohito's

ancestor, 69 generations removed, and practically all present day affluent Japanese are his progeny or that of his three most able lieutenants, Nakatomi, Mononobe and Otomo. Jimmu and his immediate descendants practiced a savage, spartan puritanism which equated cleanliness with godliness, using countless ceremonies of ritual purification. They seemed to be terrified of the pollution of death, and when an emperor passed away, the entire capital was moved to a new site.

On the local spirit worship Jimmu built the basis for later Shintoism, adding the continental worship of ancestral ghosts. He showed his people a bronze mirror, a bright sword and a string of semi-precious, half-moon shaped, smooth stones and made these the talismans of his divinity, allegedly bestowed on him by the Sun-Goddess. These objects have been protected as symbols of the divine emperor down to this day. (Ref. 6)

During the first four centuries of the Christian era this imperial Yamato clan seems gradually to have taken over most of central and western Japan in a long series of wars with other clans and the Ainu in the east and Kumaso in the west. The latter appear to have been of alien and quite possibly southern origin. A Japanese embassy was established in China in 57. (Ref. 7)

KOREA

Records from Korean kingdoms show that from A.D. 42 to 562 Karak, Miniana, as the Japanese later called it, and which we now know as Pusan, was recognized as an independent Japanese city-state. This may originally only have been a way-station for raiders going to the far south Malayan area. In the north, Koguryo and other states attempted to assert their independence from the Chinese colony in the region. (Ref. 8)

SOUTHEAST ASIA

The Chinese Han Empire extended its civil administration over Chinese colonies in North Vietnam. In South Vietnam and present day Cambodia there was the state of Funan, perhaps started by Khmers with an Indian spiritual background. It prospered by its position on the trade route between India and China. In the Mekong delta the people built canals to control floods and to limit the intrusion of salt water on to the land. Java and neighboring islands were conquered by Hindu princes from India and thereafter a

number of Hindu empires divided the region. (Ref. [9](#), [10](#), [11](#))

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1. The chronology used here, of Jimmu's "coronation" at A.D. 50, is that of the archaeologist Edward Kidder. Official Japanese dating, adopted for ideological purposes, places this some 600 to 800 years earlier. (Ref. [5](#))

The Far East: A.D. 101 to 200

THE FAR EAST

CHINA AND MANCHURIA (Later Han Dynasty)

In the entire first half of the century there were a series of Han Dynasty empresses ruling weakly for themselves and/or various infants and youths, with the help of some very clever court eunuchs. By A.D. 157 the population had reached a peak of almost 55,000,000. Han court records refer to Roman ambassadors with dates of visits and the names of current Roman emperors, but conversely these embassies are not mentioned in any known Roman records. The Chinese government's return to laissez-faire policies allowed the great land-owners to again dominate the serfs and avoid taxes. Then a series of natural disasters occurred, beginning with massive floods and locust infestations at A.D. 175. At about the same time, in at least two different years, there were great pestilences which broke out in the army fighting on the northwestern frontier, with three or four out of ten dying. This plague, whatever it may have been, apparently seeped down all through Asia to some degree in the next 20 years. Peasants began seeking refuge in Taoist inspired religious cults, which offered faith healing and alchemical prescriptions. (Ref. [1](#), [2](#), [3](#))

It was the massive religious uprising of the "Yellow Turbans" against the palace eunuchs in A.D. 184 which finally began to bring down the Han Dynasty. The remaining eunuchs were finally massacred by Yuan (War Lord) Shao in 189 and the capital Loyang was seized by General Tung Cho in 190. Some 700 other officials and some 1,000 students were thrown in prison and tortured and cannibalism has even been alleged. In this Later Han period the student body of the national university had swelled to some 30,000 youths, many apparently evaders of military and other state service.

Local militias were now abolished to lessen local war-lordism and although the dynasty continued officially on into the next century, in actuality the last few years were an era of chaos and divided states. (Ref. [4](#), [5](#), [6](#))

Chinese art, astrology and astronomy appropriated some Hellenistic elements, but it is of interest that in many simple items the Chinese were far ahead of the western world. For instance, in this century the Chinese used wheelbarrows, cranks, objects mounted in gimbals to keep level (as shipboard lamps), treadles and rotating fans, none of which were used in Europe until variously the 9th to the 18th centuries. Paper was invented by Tshai Lun in A.D. 105 and was made from decayed vegetable matter, although the process was kept secret by the Chinese for many centuries. The chair was introduced in this or the next century but didn't come into general use for several hundred years. Most of southern China remained in the hands of aboriginal peoples for centuries to come. (Ref. [7](#), [8](#), [9](#), [10](#))¹

1

This excellent, lethal instrument was about as easy to use as a handgun and needed no special strength to cock it, while the long bow required years of practice to develop sufficient thumb and finger strength to draw the bow to its full arc. Technically, manufacture of the cross-bow involved a most difficult lamination procedure using wood, bone, horn and sinew, as well as the skilled construction of a metal trigger apparatus. (Ref. [11](#))

JAPAN

For five generations after Jimmu, the Yamato emperors were very careful not to mix their blood with the aborigines and they imported women of their own race from the home fief in Korea. Each prince and vassal had as many wives as he could afford and the old records tell of families with 100 children. After the first five generations, Jimmu's court descendants began to marry their own cousins and although the inbreeding was great, the stock was healthy and a large percentage, probably more than one-half, of modern Japanese are descended from it. At A.D. 200 the Empress Jingu is said to have sent a vast fleet of multi-oared ships to dominate the Koreans and exact tribute. (Ref. [12](#), [13](#))

KOREA

Koguryo continued as an independent state, and there were now other communities which could break away from the weakened Han control. At the end of the century part of Korea was forced to pay tribute to Japan. (Ref. 14)

SOUTHEAST ASIA

We noted in the last chapter that China had occupied North Vietnam and Champa. In this century the Hindu influenced state of the Chams arose in the area now known as South Vietnam, but north of Saigon. For the next 1,200 years they struggled to remain independent of the expanding Viet and Khmer kingdoms. Funan existed as a prosperous state in the Cambodia and extreme southern Vietnam areas, developing a network of irrigation and transportation canals that made the huge Mekong River valley fertile and the country rich with commerce. Burma, Thailand, Cambodia and Laos became the chief lands for the Hinayana or Lesser Vehicle Buddhism. (Ref. 15, 16, 17)2

2

In the Mekong delta an inland center called "Oc-eo" was a small scale Venice. It had many gold artifacts, including a seal ring with Sanskrit inscription, a life-sized Hindu statue and gold metal from Rome, dated A.D. 152. (Ref. 18)

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The Far East: A.D. 201 to 300

THE FAR EAST

CHINA AND MANCHURIA (Han to 220, Three Kingdoms to 280, then Chin)

At the beginning of the century the capital was at Lo-yang and northeastern China grew in importance. The Han Empire now reached as far south as Haiphong, but "The force of the imperial unity played itself out in 220, when the last of the Han emperors officially abdicated at the bidding of a general who had already kept him in custody for several years." (1) There followed a period of disordered life and a stalemated civilization, during which time there were three kingdoms: Wei, in the north, directly following the Han Dynasty, under Ts'ao P'ei; Wu, in the southeast, based at Nanking under Sun Ch'u~an; and Shu, controlled by Liu Pei and based at Chengtu in the southwest. Liu Pei and his family, originally lieutenants of General Ts'ao Ts'oa, protector of the last of the Hans, then became the greatest enemy of the Wei, giving rise to legends, fiction and drama in China for centuries to come. Even so, Shu Han was absorbed by Wei in A.D. 263 and Wu gave way in 280, ending the Three Kingdoms era. In the meantime, the Ssu-ma family generals had taken over Wei and changed the name to Chin, and for a generation after 280 China again had a fragile unity. The population at that time was only 16,163,0009 a drop from 55,000,000 in the middle of the 2nd century. A severe pestilence was a major factor in this population decline, as in Europe at the same time, but at least part of it was due to wide-spread cannibalism. China had entered her four centuries of "dark ages". The southern Hsiung-nu lived on the frontier as a hostile minority and the long delayed clash was about to occur. (Ref. [1](#), [2](#), [3](#), [4](#))

Mo Ching wrote the Pulse Classic, an intensive method of

diagnosis from study of the pulse, a procedure still used in China and which had originally been described in the 6th or 5th century B.C. Chang Chung-ching wrote a classic treatise on "Typhoid and other Fevers" and it was perhaps in this century that Ko Hung described beriberi, hepatitis, and plague and gave an early report on small-pox with an accurate description of the pustules. Chinese medicine continued to progress from this time until the 10th century, when it became static. Although sugar cane was known near Canton, it was not commuted to sugar, proper, and honey remained the universal sweetener. (Ref. 5, 6, 7)

JAPAN

Sometime between A.D. 200 and 250 the 10th emperor, Sujin, had the **royal bronze mirror and the sword** enshrined outside the palace for all to see and admire. The mirror, called "the mirror of knowledge" was housed at a shrine called "Ise", which even today is a prime holy place of Japan. The Yamato Culture of Korean origin was introduced with iron implements and megalithic burials. Handicrafts were soon organized into guilds. Beneath this artisan class was a slave class, recruited from prisons and battle- fields. Social organization was partly feudal, partly tribal and each clan had a sovereign head. Government was primitively low and weak, although it was a period of geographical expansion and victory over the Ainu. (Ref. 8, 9)

KOREA

This was a period of some turmoil, with early century invasions by Kungsun Manchurians and late century conquests by the Chinese of the Wei Dynasty. About A.D. 250 northern invaders established the state of Paikche, in the southwest.

SOUTHEAST ASIA

Burma was under Indian influence and by this era Hindu peoples had established commercial settlements on the coast and river mouths. These settlements developed into small kingdoms in contact with Tibeto-Burmese tribes. Champa, Funan, Viet and Khmer kingdoms continued rivalries. The Chinese controlled

Haiphong and it is probable that Chinese and Indian traders met at Go Oc Eo in southern Cambodia, from whence the Indians carried the Chinese goods on across the Malay Peninsula and on to India. From A.D. 200 on the island kingdoms of Indonesia derived their civilization from India, through contacts with Hindu traders and Buddhist monks. (Ref. [10](#), [11](#))

REFERENCE Quotation taken from Mc Neill (Ref. [12](#)), page 324.

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The Far East: A.D. 301 to 400

THE FAR EAST

CHINA AND MANCHURIA (*Chin to 316, then north-south division with Wei*)

We ended the last century with the new Chin Dynasty ruling a somewhat unified China but this era was dominated by great landowning families, each with hundreds of serfs and private soldiers. In A.D. 304 a sinicized Hsiung-un chieftain established a state called "Han" (later Chao) in Shansi and from there he sacked the Chin capital at Loyang seven years later. At this same time a great pestilence, preceded by locusts and famine, left only one or two people out of a hundred alive in the northwestern provinces of China. In 322 another epidemic, which may have been small-pox, hit with three out of each ten dying. Maximal political fragmentation coincided almost exactly with the arrival of this disease and the population, overall, was nearly halved. The political upheavals involved several short-lived dynasties of foreigners from the steppes, some Hsiung-nu, some proto-Mongolian Hsien-pei, some Turkic and Avar and even some Tibetan tribes. It was the Shansi Hsiung-nu who again overwhelmed the new Chin capital at Ch'ang-an. They were led by Liu Yuan who was six feet tall and had red strains in his long beard¹. Subsequently this area of northern Honan, in central China, was ruled by the Chieh, one of the 19 tribes of the Hsiung-nu. These Chieh had high noses and full beards and were definitely non-Mongolian, perhaps Tocharian, in origin. They were finally massacred, all 200,000 of them, in A.D. 349 by Jan Min who then became lord of the region. (Ref. [1](#), [2](#), [3](#), [4](#)) Refugees from the north set up a new Eastern Chin Dynasty at Nanking and in 347 they reconquered Szechwan but in the latter half of the century a Tibetan general, FuChien, temporarily

consolidated the north. His plan to add the south was wrecked at a famous battle of the Fei River in 383 when he was defeated by the Eastern Chin. Finally in 386 a powerful Turkic people, the Toba (Northern Wei) who became avid Buddhists, succeeded in re-unifying northern China once again. Their kingdom actually included a large part of Siberia and Manchuria, carrying the absorbed Chinese civilization to the Arctic. This has been compared to Charlemagne's Empire in that in both the barbarians became civilized - "Chinicized" or "Romanized" respectively. The Buddhist art of north China was profoundly influenced by Central Asia for the next 200 years, although in the south, as the Chinese achieved some mastery of the concepts and terms of Indian Buddhism, they began to develop schools of their own (Ref. 6, 7, 8)

JAPAN

Southern Japan was still in the Great Tombs or Kofun Period, in which the nobles used pottery coffins, high-fired stoneware, iron and bronze implements and weapons. (Ref. 9) The victories of the half-legendary Prince Yamatodake over the Kumaso and the Ainu seem to reflect a period of rapid expansion in the early decades of this century. There were many Japanese campaigns now onto the Korean peninsula by the armies of the Empress Jingo, with the establishment of a Japanese protectorate over a group of miniature states known as Kara or Imna, in southern Korea.

The 12th emperor, Keiko, who reigned probably from A.D. 280 to 316 returned to Kyushu and after getting rid of the **queens of the ancient, savage tribe** he negotiated a permanent merger of Yamato and Kyushu.

As Yamato grew in geographical size, chiefly by driving the Ainu farther and farther north, the population increased and the emperors, like the Egyptian pharaohs, began to construct vast mausolea. Each successive ruler wanted a bigger tumulus and a larger company of victim vassals to be buried with him and convey him to the spirit world. Forced retainer sacrifice was practiced routinely in this and the next century. (Ref. 10)

KOREA

By A.D. 313 the last remnants of Chinese colonies were

extinguished by the native states of Korea, although Chinese culture remained dispersed throughout the peninsula.

Three kingdoms emerged: Koguryo in the north; Paekche in the southwest; and Silla in the southeast. All had high-fired pottery of great excellence. The Japanese foothold, mentioned in the second paragraph above, was established between the two latter kingdoms. (Ref. 11)

SOUTHEAST ASIA

Tibeto-Burmese tribesmen migrated from the north into present day Burma, forming the Pyu Kingdom. Chenla was the country of Khmer people occupying what is now Thailand and Laos. Funan, under its Khmer rulers, continued as a prosperous agricultural and trading country on the Cambodian plateau. Active civilizations existed in the Indonesian area with sea-faring men trading with Africa and Europe. Cinnamon from Malaya and Indonesia was sent all the way to Rome. (Ref. 12, 13)

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The Far East: A.D. 401 to 500

THE FAR EAST

CHINA AND MANCHURIA (Northern and southern dynasties)

The ruling Toba Wei had become completely Sinicized by this time and had carried out a redistribution of land to bring more under cultivation and rehabilitate the economy in northern China. The southern dynasty, the Eastern Chin, pushed northward regaining access through Kansu to the central Asian trade routes but through court intrigues and usurpations there was an ever increasingly weaker series of dynasties, including Sung (420-429) and southern Ch'i (479-502). Even so, these southerners, considering themselves the saviors of the old Han civilization, absorbed most of the aboriginal peoples of the south China area into the Chinese mainstream, as Buddhism became the predominant intellectual and religious force. (Ref. 1)

There was also intense activity in philosophical as well as religious thought. Taoism broke into sects and never became a unified religion. Ch'an Buddhism (similar to Japanese Zen) was brought to China allegedly by Bodhidharma. Chinese junks sailed regularly to the head of the Persian Gulf with cargoes for Babylon, although little or no apparent exchange of ideas and techniques occurred between east and west. The junks, for many centuries, had had single rudders, water tight compartments and staterooms, all far advanced inventions not used by westerners for up to 1,600 years later. The ships carried fresh ginger growing in pots and thus unknowingly prevented scurvy. (Ref. 2, 3, 4)

JAPAN

The mausoleum constructed for Emperor Nintoku, who may have died in 427¹, is a moat-girded artificial mountain, 80 acres in area, more than one-half mile long and after 1,500 years of weathering still over 100 feet high. It took 20 years to build by conscription labor. Japan's royal family has refused any excavation of any of the royal mounds to this day. In this 5th century the Chinese system of ideographic writing was brought to Japan but phonetic symbols had to be invented to express the Japanese word endings and it was actually another 200 years before it became a real vehicle for Japanese thought and record. In the meantime, during the reign of Inkyo, music and dance were promoted and Chinese Buddhism was introduced and began to rival Shintoism in popular favor. (Ref. 5, 6, 7)

KOREA

The Three Kingdoms period continued. King Changsu brought Kogurya to the height of its power and moved the capital from the Yalu River to P'yongyang. Silla continued expansion in the south. (Ref. 10)

SOUTHEAST ASIA

No important changes from the last century have been identified from the literature and the reader is referred to those previous centuries.

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1. This date is from Bergamini (Ref. 8) but there is some confusion here in that Durant (Ref. 9) indicates that the next emperor, Inkyo, started his reign in 412

The Far East: A.D. 501 to 600

THE FAR EAST

CHINA AND MANCHURIA (Northern and Southern Dynasties to 581, then Sui)

The T'o-pa Turks of Manchuria gave way early in the century to a new nomadic empire of the Juan-Juan tribes, a mixture of proto-Turk and proto-Mongol elements. Overthrown in 551 they migrated westward to become the Avars of European history. The powerful Korean state of Koguryo controlled a part of Manchuria in this period.

The northern part of China continued to be dominated most of the time by nomadic border tribes. Among these was the Western Wei Dynasty which in the middle of this century adopted an old Mongol tribal institution in that every family that had more than two sons had to send one for permanent service in one of the 100 garrisons in the state. The militiamen were exempt from taxes and other labor levies and this system, called "fu-ping", was intended to separate elite fighting men from the farming population. In some form it persisted through several centuries. There were other nomad intrusions and civil conflicts, but the invaders always adopted Chinese customs and culture and the Chinese upper class, particularly in northwest China collaborated and intermarried with the Turks and Hsien-pei with a resulting Sino-nomad aristocracy, many people speaking both Chinese and Turkish. It was from this mixture that came the ruling house of the Sui, who took control in 581 and finally unified all of China under a Chinese, Yang Chien, who had previously been a minister of the northern Chou court. (Ref. 1, 2)

This was the great age of Mahayana Buddhist sculpture in China, as this type of the religion had swept into the country from India

and flourished there as it lost ground in its homeland. At this time China built suspension bridges held up by chains, a procedure not used in the West for some 1,200 years. The rebuilding of old canals linking the capital, Ch'ang-an, with the Yellow River in 584 contributed to stability and work was started on what westerners call the Grand Canal, linking the Yellow and Yangste rivers. All this was done under Wen-ti (581-604)5 a Sui emperor who was an effective administrator and skilled propagandist. (Ref. 3, 4)

JAPAN

Up until about this time the Japanese islands formed part of a large culture, nomadic in origin, which included Manchuria, eastern Siberia and Korea. We mentioned in the last chapter that Buddhism had crossed over from China to Japan via Paekche, Korea and it made rapid conquest with the help of Emperor Senka. (Ref. 5) Unfortunately the Korean missionaries also brought a lethal disease, perhaps small-pox, and epidemics followed in Japan about each thirty years throughout the remainder of the century, although some medical help came from China. Both the religious needs of the people and the political needs of the state gave Buddhism fertile ground. This was not the agnostic, pessimistic and puritan philosophy of Buddha, himself, but the Mahayana variety of gentle gods, cheerful ceremonies and personal immortality. It offered the people that unity of feeling and belief which serves as a source of social order. With it also came fine and useful arts such as painting, sculpture, architecture, music, bronze works, textile making and medical arts. The written Chinese language continued to be modified into a complex system by adding phonetic elements to the ideographs, for writing the Japanese language. The period of Haniwa sculptures of human figures, generally coil-built cylinders of unglazed, iron-bearing clay, fired to a warm buff color, has representation today in the Rockefeller collection. (Ref. 6, 7)

In 587 Emperor Bidatsu (31st emperor) embraced Buddhism on his death bed but the clan of court armorers, the Mononobe, would have none of this and they rebelled and burned Buddhist temples far and wide. But the Kyushu ladies' faction at the court exterminated this clan, bringing to power the son of a Mononobe mother, Prince Shotoku Taishi, who agreed to a Chinese type of program for strengthening the nation. Prince Shotoku was a child

prodigy who had mastered the Chinese system of writing by the age of seven. We shall hear much more of him in the next century. (Ref. 8, 9)

KOREA

In the north, Koguryo continued as a powerful state with some territory also in Manchuria. In the south, Silla finally adopted Buddhism and then began to make rapid progress in civilization and in geographic expansion at the expense of the adjacent Japanese colony. By 554 Silla won an outlet on the East China Sea in central Korea, giving her easy sea communications with China. Chinese medicine spread to Korea at this time. (Ref. 10, 11)¹

¹

(Ref. 12)

SOUTHEAST ASIA

Dvaravati, Thaton and Pegu were Mon kingdoms appearing at this time in what is now southern Burma. They spread Buddhism that ultimately became the faith of most of the peninsula. Around A.D. 550 the Funan Kingdom was overthrown by the Kambujas, a mountain people from Chenla (Laos), after floods had ravaged the Mekong Valley. Their king was also of the same royal line as the Funan (a Khmer) and these people were closely tied to the Hindu tradition and deities. (Ref. 13)

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The Far East: A.D. 601 to 700

THE FAR EAST

CHINA AND MANCHURIA (Sui to 618, then T'ang Dynasty)

The Sui Dynasty consolidated China in part through state patronage of a style of Buddhism which was acceptable by both north and south and by construction of a canal system linking the Yangtze with the Yellow River in the Peking region. They did not do well in foreign affairs, however, as they had lost the Tarim Basin, Manchuria and Korea and several early wars to reclaim these lands had failed. Some historians have even considered the first Sui emperor of this century, Yang-ti, a complete madman who had supposedly poisoned his father to get the throne. (Ref. 1) Civil war soon developed and victorious was the family of Li, who established the T'ang Dynasty. In A.D. 610 we find the earliest description of bubonic plague, which soon became common in Canton on the sea. Perhaps this plague was a factor in the demise of the Sui Dynasty. (Ref. 2, 3)

For a short while the warlike Turkish nomads of the steppes became allies of the new T'ang Dynasty and the Chinese even adopted Turkish fashions, developed Turkish Chinese dictionaries and wore Turkish clothes. The T'ang, like the Sui before them, came from a mixed Turkish-Mongolian-Chinese aristocracy. Their second ruler, T'ai Tsung (AD. 627-650) was one of the greatest of Chinese emperors. All the aristocrats of this period were of the mixed blood and characteristically hard-drinking, hard-riding, fighting men who hunted with falcons and whose women played polo. We have noted that in the preceding centuries work had been started in the clearing and draining of the luxuriant jungles of the Yangtze Valley so that by the beginning of this century this valley not only supported a large population but was capable of producing large

surpluses of food. To widen the canal between the Yangtze and Huany Ho Valley, about 5,500,000 workers, including all commoners between 15 and 50 years of age in some areas, were concentrated under the control of some 50,000 police. They were forced laborers but not slaves, in the true sense. As a result of all this the T'angs had a double base, the Yellow and the Yangtze rivers, and by 611 the Grand Canal joining the two had been completed so that shipments of large quantities of rice and other goods was possible from the south to the northern capitals. The imperial bureaucracy managed the collection, transport and distribution of such goods, while the Great Wall in the north was reconstructed for defense. These factors of a biological mix, a thriving economy and the spiritual stimulation of Buddhism, with a genius ruler, started China on its greatest age. T'ai Tsung, after reunifying much of China by war, returned to his capital, Ch'ang-an, and gave himself to the ways of peace, spreading the philosophy of Confucius, revising penal laws and beautifying the city. He welcomed all religions and exempted all temples from taxation. After his death, one of his harem women, Wu, pulled out of a nunnery by T'ai Tsung's oldest son, Lao-tsung, poisoned her way to power, made herself empress and proclaimed the Chou Dynasty. Actually a subsidiary of the T'ang this dynasty ushered in another creative age, with the profits of exported rice, wheat, silk and spices spent for unparalleled luxury. Furs, precious jewels, statues, paintings, poems and money were everywhere in abundance. (Ref. 4, 5, 6, 7)

The *fu-ping* system of military conscription, started by the Wei Dynasty (see page 423), evolved to the T'ang system of elite, career soldiers who also performed agricultural work to support themselves, as far as possible. The T'ang had more than 600 garrisons clustered primarily around Ch'ang-an. Their statutory punishments came under five categories: death by strangulation or bisection; exile from home (up to 1,000 English miles); hard labor for up to 3 years; beating with heavy bamboo rods up to 100 blows. Commutation to fines was often possible for people of wealth. (Ref. 8, 9)

In the period of their foreign excursions in the 660s Chinese armies intervened in India and Central Asia, re-occupying the Tarim Basin, Dzungaria and Afghanistan and they briefly sat up protectorates in Tukharistan, Sogdiana, Ferghana and even eastern

Persia. Yunnan came under Chinese suzerainty at the end of the century and a portion of Manchuria, previously under Korean control, was returned to China as Empress Wu intervened in a Korean civil war. After three centuries of importance the use of the armored, great Persian horses in cavalry units came to an end in China. If a cross-bowman could knock even a heavily armored man off his horse, it made no sense to have these expensive units. (Ref. 10, 11)

Sun Szu-miao wrote a 30 volume summary of medical knowledge gained up to that time and then headed a committee which produced a 50 volume treatise on pathology. It was in this century that examinations were first required to qualify as a physician, a process that preceded the first licensing program in the West by some 4 centuries. It was about this time that women of proper family started to bind their feet (i.e. the mothers bound the infants' feet) producing a severely deformed, cavus foot. This greatly restricted their activities and allowed their legs and mons to accumulate much fat, thus supposedly making them very attractive sexually to the Chinese men. The custom was continued for a thousand years.

JAPAN

As the century opened, the child prodigy, Prince Shotoku Taishi, had formed groups of scholars who wrote the first histories, geographies, grammars and legal codes of Japan and who drew up orderly plans for a census, land surveys, equitable conscription and taxation. He also worked out a compromise between Buddhism and Shintoism that could be tolerated. At his death in 621, the Shinto princes and the Buddhist princes of the imperial family actually came to a small war, with the Nakatomi family eventually winning power to put Crown Prince Tenji on the throne. He carried out Shotoku's ideas which were known as the great "Taika Reforms". (Ref. 12)

Despite these civilizing factors, within a generation of Prince Taishi's death a violent crisis appeared which included a terrible famine with thousands dying. Along with this developed a strange new religion called "Tokoyonomushi" in which devotees worshiped a large worm, drank sake and danced in the streets, giving away money. (Ref. 13) A palace revolution produced such a marked

change that native historians refer to it as the "Great Reform" of 645. The Japanese government was reconstructed into an autocratic, imperial power. The sovereign was elevated from the leadership of the principal clan to paramount authority over every official in Japan, thus creating a closely-knit monarchical state. The emperors were allowed as many wives or consorts as desired and the heir to the throne was picked from any of his off-spring. The early emperors were devout Buddhists but Shintoism was never completely abandoned. Japan then had an embassy in China and Chinese civilization continued to be imported via Japanese students, monks and physicians studying in China. (Ref. 14)

In 670 when the old Nakatomi reformer who had put Tenji on the throne was dying, the emperor sent a pregnant concubine of his to comfort the old man. When the boy child was born the emperor gave him the name Fujiwara, and it was this boy's descendants, the Fujiwara clan, which took the place of the Nakotomis as the emperor's most intimate counselors for the next 1,275 years.

KOREA

China tried to conquer Korea again in 612 and failed but did essentially accomplish this in 668 as the Chou Empress Wu intervened in a Korean civil war and helped Silla to forge a united Korea while holding a few areas under Chinese suzerainty. As Koguryo was destroyed China also regained some Manchurian territory formerly dominated by these Koreans. Within two years Silla had pushed the Chinese out of Paekche and started the period which was the acme of Silla power and culture. Buddhism and its art flourished, particularly at the capital near the modern Kyongju. Skilled metal work was one of the special accomplishments.¹

¹

D. 688 that Silla absorbed Paekche and Koguryo. Their capital city had 178,936 households with 1,000,000 people and was one of the world's greatest cities of the time. Buildings were roofed with tile and heated by charcoal. The burial burrows of that period are great archeology treasures. (Ref. 15)

SOUTHEAST ASIA

It is as difficult to record and explain the history of southeast Asia as it is the Balkan peninsula of Europe, in that in both the names and borders of many small countries have changed almost as rapidly as the years. In this 7th century there was a Cambodia where small Hindu temples were being built at Angkor Borei. A Sanskrit inscription in Cambodia of A.D. 604 shows a decimal position, suggesting an advanced knowledge of mathematics. The Funan Empire continued under control of Chenla and in Pyu (now Burma) a Buddhist capital of Srikshetra (now Hinawza) was founded some 200 miles north of present Rangoon, in 638. In Thailand the earliest kingdom was of a Mon people from lower Burma, who settled in the valley of River Menan and established a capital at Dvaravati, from which comes the name of their kingdom and their art. Under Isaravarman (611-635) the Khmers extended westward and developed great artistic and hydraulic engineering projects. (Ref. [16](#), [17](#), [18](#), [19](#))

In the Indonesian archipelago, the Empire of Srivijaya, based in Sumatra, dominated the straits of Sunda and Malacca and taxed the commerce in those waters for the next six centuries. Palembang, in southeast Sumatra, besides being the capital of that maritime empire, was a center of Sanskrit Culture. (Ref. [20](#))

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The Far East: A.D. 701 to 800

THE FAR EAST

CHINA AND MANCHURIA (Continued T'ang Dynasty)

After the death of Empress Wu the true T'ang Dynasty resumed control. Of particular note is Ming Huang (or Hsuan Tsung) (712-756), the "Brilliant Emperor" under whom China stood in the very forefront of civilization, the most powerful, enlightened, progressive and best-governed empire on earth. By the middle of this 8th century the imperial officers began exchanging excess grain for various luxury goods and the effect was to expand a market for highly skilled artisan wares such as fine silks, porcelains, lacquer works, etc. A substantial enlargement of merchant and artisan classes ensued, with an increase in urban growth. Sugar cane, native to Bengal, was imported in China and adapted itself readily in the neighborhood of Canton where a wooded hinterland supplied the great amount of fuel necessary for its processing. Tea, known in Szechwan for centuries, now spread throughout the country. (Ref. 1) From the Han to the T'ang dynasties China's population had varied greatly but had now built back up to about 50 million people, kept from being still larger, at least in part, by infanticide. (Ref. 2, 3)

The army was professional and largely recruited from and commanded by "barbarians". In fighting with the expanding Arabs in west Turkistan, the Arabs were helped by the Karluk Turks, who attacked the Chinese from the rear. In the steppe, the Uigur and Girghiz Turks were now in control and the last of the Turkic peoples to reside in Mongolia. In China, proper, in 754, 75% of the total population lived north of the Yangtze River. The city of Ch'ang-an had 2,000,000 inhabitants with half of those living within the walled inner city of 30 square miles. A total of 26 cities

had registered populations of over 500,000. The oldest datable printed materials were produced in 770 when 1,000,000 copies of a Buddhist charm were run off by commission from a Japanese empress. (Ref. 4, 5)

It has been said that Emperor Hsuan-tsung lived too long, because in 745 at age 60 he fell in love with one of his sons' concubines, Lady Yang (Yang Kuei-fei), and soon her family monopolized the most powerful ministerial posts. One of these, An Lu-Shan, an audacious Turk, had the run of the palace as Lady Yang's adopted son. Soon thereafter when the "barbarians" of Asia again bore down on the Chinese borders, An Lu-Shan, then a general, rose in rebellion against the T'ang forces and they had to be recalled from the frontiers to defend the emperor. The rebellion was checked in 763, but the T'ang Dynasty had been eroded and Chinese power did not return to central Asia for six centuries. (See also previous section, this chapter). This type of revolt by a border "guard" was always a threat to the Chinese central authority and explains, in part, their continual efforts to keep the military under tight control. The same paranoia determined their policy of breaking up undue concentrations of wealth. No one - military commander or rich trader - was ever to be in a position to challenge the authority of the political ruler. (Ref. 6) In the An Lu-Shan revolt some 3,500,000 lost their lives and this was followed in 762 by a plague in Shantung province with more than one-half of the people dying. The disease risk in the south was greater than the risk of death on the nomad frontier. (Ref. 7, 8) Intervention of the Uighur Turks from Mongolia helped to save the T'ang Dynasty after the tragedies, but thereafter the T'ang court was essentially a vassal of the Uighur khan. In this period of tragedy from revolt and disease, Chinese poets reached great heights, with Li Po becoming the "Keats" of China.

In Manchuria, the proto-Mongolian people, the Khitan, had begun to raid the Chinese border as early as 695 and they continued throughout this 8th century. A little to their east were the P'o-Hai, a powerful kingdom set on the Chinese model but established by the remnants of the Korean Koguryo nobles. They remained independent from 710 on for some two centuries. (Ref. 9)

JAPAN

We have previously indicated that for centuries it had been the custom for the Japanese royal family to change its capital each time a ruling emperor died. The so-called Nara period started with the capital at that city in 710, but this metropolis was too large to be torn down and moved each generation and that practice was stopped, at least until the final move to Kyoto in A.D. 794. Both Nara and Kyoto had been constructed using Baghdad as a model. (Ref. 10) After Emperor Kammu transferred his capital to Kyoto, Japanese art, previously under Chinese influences, developed its own mature style and taste. (Ref. 11) After Kammu's death the emperor's role deteriorated somewhat. Throughout this period, under Fujiwara ministers, court life had become a great pageant of ceremonies and costumes, and gradually the emperor's person, itself, became so taboo and awe-inspiring, as a rouged and gilded doll, that he began to be veiled from the world and the Fujiwaras took all responsibility for decisions, good or bad, shielding the throne. gradually came to believe in an emperor who was at the same time "a mortal god, a zero infinity, an impotent omnipotence"¹. New civil and penal codes and the Yoro Laws, which were revisions of the Taiho Reforms, came into effect about 757 and gradually became more effective.

In 752 the Great Buddha at Nara, a 53 foot bronze figure, was dedicated as the cherished project of the Shomas. At the end of the century, in 790, Japan had a sustained epidemic with women under 30 years and males of all ages afflicted. (Ref. 13)

KOREA

Most of Korea was now united under the Silla Dynasty. Buddhism and art flourished, particularly at the capital on the site of modern Kyongju.

SOUTHEAST ASIA

The T'ai, or Shan, peoples had been infiltrating down into the southeast Asian peninsula for several centuries and now they formed a kingdom in Yunnan province of China.

The Dvaravati kingdom of Khmer people was Buddhist, rather than Brahman in religion, and in this century migrants were sent to the upper Menam Valley where they established the independent

Kingdom of Haripunjaya, with a capital near the present Chiangmai. All of this occurred in what is now Thailand. Burma was under Indian influence and had Hindu commercial settlements on the Tenasserim coast and at the principal river mouths. In Cambodia the war-like course of the Chenlas was brought to an end when a king from Java entered and beheaded the Chenla ruler. Although the Javanese soon withdrew, that kingdom declined. On the Atlantic coast was Champa, under strong Indian influence. (Ref. [14](#), [15](#), [16](#))

Throughout the first millennium after Christ, but particularly from the 7th to the 16th century, Indian culture and religious influence spread throughout Indonesia and in particular it created a distinctive civilization in Java. This society, controlled by the Buddhist king of the Sailendra Dynasty, was second only to the Khmers in southeast Asia. (Ref. [17](#), [18](#)) In this and the next century, Arab traders brought the Moslem religion to the Philippines and then, in turn, came the Indians. (Ref. [19](#))

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The Far East: A.D. 801 to 900

THE FAR EAST

CHINA AND MANCHURIA (Continued T'ang Dynasty)

The "Eastern Turks" pretty well dominated Manchuria at this time. In China it was an age of weak rulers with the emperor almost a vassal of the Uigur Khan. Even what power the emperor had was lost to the eunuchs of his court and the situation ended in violence. The first surge of religious persecution occurred between 843 and 846 when the rich Buddhist monasteries were suppressed, perhaps chiefly for fiscal reasons. In 845, 44,600 Buddhist establishments were destroyed, 260,500 monks and nuns were put back onto the tax lists and 150,000 of them were enslaved. Chinese Buddhism never recovered from this blow. In this connection it is interesting to note that in the far northwest corner of China there are 60 meter-high cliffs running for some 1,600 meters, near the town of Dunhuang, in which caves of various sizes had been filled with Buddhist sculptures for generations. There are still some 600 caves in as many as 4 levels. After A.D. 781 the area had been occupied by invading Tibetans but in 848 the latter were expelled and the caves came under control of local families nominally under allegiance to the Chinese T'angs but in actual fact acting as a separate kingdom throughout the remainder of the century and even after. In this way these beautiful art works were protected from the severe persecution of Buddhism occurring in the other parts of China. (Ref. 1) These Dunhuang caves are not the only ones of this type. We have previously mentioned the Caves of the Thousand Buddhas of Asia, on page 444, and now we should mention the Longmen Caves in the limestone cliff s just south of the capital of Luoyang along the Yi River in Henan province. Started in 494, these carvings were continued throughout the T'ang period

and still show 1,300 grottoes, 750 niches and 40 pagodas decorated with almost 100,000 images. (Ref. 2)

In addition to the destruction of Buddhism, China suffered a series of bitter peasant rebellions between 874 and 883. In 1879 when the rebels took Canton, thousands of Moslems, Jews, Christians and Manicheans were slaughtered. Prior to this the Chinese had been tolerant of Manicheism, which was the religion of their erstwhile allies, the Uigur Turks. After the latter were defeated by the Kirghiz Turks in 840, however, the necessity for tolerance disappeared and Manicheism was banned along with Buddhism. (Ref. 3) Gunpowder was made in this century with saltpetre, sulfur and crushed charcoal, although it was not used in firearms for another two centuries. (Ref. 4)

JAPAN

The Fujiwaras ran Japan skillfully over most of the entire period from 670 to 950. They exerted influence partly through their sisters and daughters, who for 1300 years, were the chief source of wives and concubines of the palace so that Fujiwara women bore no less than 54 of the 76 emperors between 724 and Hirohito's birth in 1900. In A.D. 808 over 1/2 the population of Japan died of disease which may have been bubonic plague, since it had been on the China coast just prior to this. After that tragedy, however, Japan entered its Golden Age, with progress in civilization and technology which incidentally brought an increase in social distinctions. It was a period of handicrafts with silks, wood- work, porcelains, lacquers and painted paper screens. The court ate rice, radishes, fish, Soya-bean yogurts and cheese, with wild boar, venison and pheasant along with uncultivated vegetables such as bamboo shoots, mushrooms and lotus roots, but the peasants ate barley, millet, fish, oysters, seaweed, beans, radishes, wild herbs and ferns. Buddhism demanded no meat-eating and the court encouraged the people to be pious, while privately subsidizing guilds of butchers and meat cooks. (Ref. 5)

Other great families arose - the Taira, the Minamoto and Sugawara, who subsequently made and unmade emperors. They were military families who established hereditary dictatorships, reducing the emperors apparently to mere puppets¹. A simplified, somewhat phonetic, alphabet called "Hiragana" with 51 basic

characters was developed to partially supplant the Chinese Konji with its thousands of characters. (Ref. 6) Disease hit again late in the century when the "coughing violence"² struck in 861, 862 and 872. (Ref. 7, 8)

Buddhism persisted in Japan and won even greater support when Kukai brought the Shingon³ or Tantric sect back with him from China in 806, founding a monastery which became one of the great centers of Buddhism. Posthumously, Kukai was given the title *Kobo Daishi* (great teacher and propagator of Buddhist law) and the places associated with his early asceticism and the temples he founded later became objects of pilgrimage.

KOREA

As in China this was a period of political decline, although the Silla Dynasty remained in power. Buddhism survived here, even though it was under persecution and fading in China.

SOUTHEAST ASIA

Thailand continued under the Dvaravati control while the Burmese empire of Pagan superseded the fallen Pyu. Champa, Pegu and Thaton continued as separate and distinct states.

In Cambodia the Khmers' Chenla Dynasty, under Jayavarman II, set up three capitals in 802 in the Tonle Sap Lake region at the present site of Angkor and this became the center of a vast expanded Khmer Empire. They received Indian scholars, artists and political leaders while they continued to develop both Hindu and Buddhist art. Jayavarman II had himself declared a God-king, the earthly incarnation of Shiva, establishing a cult which provided legitimacy for 30 Khmer kings of Cambodia and its satellites. (Ref. 11, 12) About 885, Indravarman I constructed a vast irrigation system which sparked the great Angkorian Khmer Empire. Farmers were able to draw water in the long, dry, winter season and three rice crops a year became a possibility. Under this king the Khmers built Hariharalaya, 15 miles southeast of the site that was to become Ankor Thom. In addition, a year after his coronation, Indravarman had arranged for the excavation of a baray⁴ five miles long and a mile wide and in 881 he had begun the Bakong, the first great monument built entirely of masonry in Ankor. (Ref. 13, 14)

In the great southern islands there were the Srivijayan Empire of Sumatra and the Sailendra Empire of Java, with the latter the dominant nation of all southeast Asia in this century. Although there were some Hindus there, administration was Buddhist and their greatest architectural accomplishment was the majestic Borobudur, a stepped pyramid of unmortared andesite and basalt volcanic stones, standing 105 feet high with a base 403 feet square. Situated in the tropical forested Kedu Plain, it is a three dimensional model of the Mahayana Buddhist cosmos. Its 160 bas-relief sculptured panels represent the World of Desire and another 1,300 carved panels depict the World of Form, as they show scenes and teachings from the life of Buddha and Buddhist texts. (Ref. [15](#))

Elsewhere in that area, Arab dhows rode the monsoon winds for Zanzibar ivory, Malayan tin, Indian spices and China silk. These merchants carried Islam to Indonesia. Megaliths, recently discovered in remote areas of Borneo, date to this era. (Ref. [16](#), [17](#), [18](#), [19](#))

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1. This has been the traditional western view, as for example in Toynbee, Reference 221, but more recent investigators have a different interpretation of the emperor's power. See JAPAN, next chapter
2. This was probably whooping cough. (Ref. 9)
3. Shingon means "The True Word". (Ref. 10)
4. A "baray" is a reservoir for water.

The Far East: A.D. 901 to 1000

THE FAR EAST

CHINA AND MANCHURIA (T'ang to 907, Divided Kingdom to 960 and then Sung Dynasty)

In Manchuria (and a part of Mongolia) Khitan tribes established the Liao Dynasty about A.D. 916 and overran part of China as the T'ang Dynasty collapsed. The Liao administration was well established in the P'o Hai area of eastern Manchuria by 934 and they executed invasions of northern China in 936 and 960, using siege machines, metal corselets and helmets, with disciplined troops organized on a decimal system similar to that of the ancient Assyrians and the Mongol armies of the future. (Ref. [1](#)) The name "Cathay" was derived from Khitae or Ch'i-tan, as they were sometimes called. They resisted Sinicization better than any other invader and retained their tribal nomadic life while remaining essentially Shamanists. Their use of human sacrifice and brutish punishments were particularly offensive to the Chinese. (Ref. [2](#), [3](#), [4](#), [5](#))

Having become the dominant war-lord of north China by 900, Chu Wen soon took the imperial T'ang court at Ch'ang-an under his protection and then slaughtered the ruling eunuchs. He followed this in 904 by murdering the emperor himself, installing a boy successor for three years and then taking over the throne personally. But with this turmoil and the Liao pressure, China broke up into the "Age of the Ten States". It was only in 960 that reunification was accomplished by General Chao-Kuang-yin who founded the northern Sung Dynasty, using a bureaucracy of Confucian officials and an almost socialistic control of the economy. The Sung, however, had to pay tribute to the Manchurian Liao all through this and the next century and they were never able to recover the northern tier of Chinese provinces.. In Charles Hucker's

classification the year 960 marks the end of the Early Empire of China. (Ref. 6)

Throughout all the political changes of the century the cave temples of Dunhuang, mentioned in the previous chapter, went undisturbed and, in fact, carving in the caves continued. Today there are still 492 grottoes on five distinct levels. (Ref. 7, 8) Paper money first appeared in A.D. 950 and the first report of chemical explosives for military use was in A.D. 1,000. By that time the Chinese seemed to have achieved biological accommodations to their previous infections and the population began to jump rapidly. In spite of malaria, bilharzias, and dengue fever the Yangtze Valley was finally conquered. (Ref. 9, 10)

By the year A.D. 1,000 China had reached its "modern" form and it changed very little thereafter until the 20th century. In comparison with the West, the limitations of this society were:

1. Human agriculture production (instead of animal and plow) kept a narrow margin between subsistence and production per agricultural head and gave less chance for a high standard of living for common people
2. A low level of peasant consumption of artisan products, which were essentially restricted to landlords and officials. European manufacturing, although on cruder material, catered to a wider base
3. Merchants were disreputable in China, as Confucius had ranked them near the bottom of the social scale. This inhibited the development of massive mercantile capital and hindered trade abroad. Thus, exploitation of Chinese inventions like paper, porcelain and gun-powder had to wait for the looser ordered society of western Europe. This was one of the side effects of the "command" system mentioned at the beginning of this chapter (Ref. 11, 12)

JAPAN

Under Daigo, greatest of the emperors set up by the Fujiwara clan, Japan continued to absorb and began to rival the culture and luxury of China. The period 901 to 922 is called the "Engi period" and was the acme of the Golden Age. Wealth accumulated and gave rise to great luxuriousness in dress, cuisine, manners, arts and tastes.

Literature flourished as the syllabary simplification of Chinese characters allowed extensive writing in the Japanese language. In 905 the Kokinshu, an anthology of over 1,000 poems in Japanese, was completed by imperial order and within a century Japanese prose was to rise to great heights. The imperial family's Shintoism fell into disuse.

The curtain that the Fujiwaras put around the throne was not meant to stifle its occupant but only to shield it. When an emperor showed talent and interest he did not exercise power while remaining emperor, but would abdicate in favor of one of his children, go to a monastery, set up his own court and administration and there he would run the Fujiwaras, who ran Japan. It is Bergamini's (Ref. 13) concept that throughout history, even including the time of World War II and Pearl Harbor, that the imperial family always ran Japan, although they exerted their domination through the powerful families of the court, such as the Fujiwaras¹. By A.D. 950 the emperors, who had never set up royal lands for their own income, found themselves dependent on the Fujiwaras for money and at the same time the nation seemed to fall apart into baronial estates, each with its own Iron Age companies of soldiers. (Ref. 14, 15) Further epidemics of the "coughing violence" (probably whooping cough) between 920 and 923, mumps in 959 and an unknown pestilence of 994 and 995 when over one-half of the population of Japan died, undoubtedly contributed to the decay of the state as the century progressed. Chinese acupuncture had spread to Japan by the end of this century and a medical school was founded by Wake Hiroya, based on Chinese methodology. (Ref. 16, 17)

KOREA

In A.D. 918 the Koryo Dynasty began in west central Korea and was to rule for almost 500 years. By 935 it had peacefully absorbed the Silla area, uniting the country. Late in the century the Liao of Manchuria began to threaten the Koreans, just as they had the Chinese, and this was only the first of many invasions that occurred in the next several centuries. In this adversity the Koreans turned to Buddhism and built many temples. The ceramics of this period are perhaps the finest expression of Korean art. Chinese acupuncture had spread to Korea by the end of this century. (Ref. 20, 21, 22)

SOUTHEAST ASIA

After 15000 years the Vietnamese rebelled against the Chinese Sungs in the Red River Delta and gained independence as Dai Viet, or Annam, which is presently North Vietnam. Although traditionally hostile to the Chinese, these people absorbed much of the Chinese character, copied Chinese industrial and agricultural techniques and followed the Confucian political ethic. In Thailand, the Dvaravati continued in power and the great

Khmer Empire carried on in Cambodia with Yasovarman I proceeding with the fabulous construction projects, including a reservoir some five square miles in size and a stone pyramid to honor himself. (Ref. 23, 24)

In Java there was a shift of the cultural center to the eastern part of the island and this situation was to continue for the next five centuries. The great Buddhist temple of Borobudur in the center of Java, however, continued to inspire its followers. (Ref. 25) There was no significant change in Sumatra from the last century.

Southeast Asia's medical systems were a mixture of Chinese, Indian and Arabic disciplines. The Arabic influence, coming in part from the Greeks, showed up in the four humors (phlegm, blood, bile and wind) whereas Indian concepts were seen in the placement of the soul in the spinal column and instruction in methods of breathing. (Ref. 26, 27)

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1. This concept of true power resting ultimately in the Japanese emperor from the beginning throughout history to the 20th century is a relatively new one, put forth by Bergamini in his book published in 1971. (Ref. 18) The previously unanimous view was typified in the 1958 text of Peffer (Ref. 19) when he says that: "In any analysis of the major elements in the composition of the Japanese scheme, the emperor deserves a minor place". (Page 39) He felt that the emperor's cabinet and Diet were the ornamental and dignified figureheads with the reality being in others, at least until very recent times

The Far East: A.D. 1001 to 1100

THE FAR EAST

CHINA AND MANCHURIA (Sung Dynasty)

The Northern Sung capital, Kaifeng, is said to have had over 50 theaters, some large enough for several thousand patrons, entertained by acrobats, dancers, clowns, musicians and actors. China, in this century, was the most populous, prosperous and cultured nation on earth. A new invasion in the northwest by Uigurs in A.D. 1035 and the rise of a Western Xia Dynasty (1032-1227) apparently did little damage to the main area of China, but they did cut off Dunhuany completely from the mainstream of Chinese culture. (Ref. 1)

After A.D. 1000 Neo-Confucianism, having absorbed important elements from Buddhism and Taoism, emerged unchallenged as the official intellectual system of China. This was a victory for the gentry as against the mercantile and military intruders, although industry continued to thrive. One of the greatest Sung advances was the introduction of the Champa rice, a new strain more drought resistant and faster ripening than previous varieties¹. Even then, however, the southern Chinese never attempted to conquer the mountain regions. With insufficient draft animals the wretched mountain-dwellers grew rice on dry land and did not participate in the low-lander peasant prosperity. (Ref. 2)

Hundreds of workmen in the Kaifeng region were employed in large scale coal and iron complexes, accounting for about 1/2 of the country's total iron production. One huge complex at Ch'its'un in Hopei had 700 coal miners, 1,000 ore miners and 1,000 blast furnace workers, producing annually some 42,000 tons of coal and over 14,000 tons of pig iron. The national total iron production was 125,000 tons a year, by A.D. 1078. (Ref. 4) Although the principal

of the blast furnaces had been known in China for 1,000 years, it was the use of coke in the early decades of this 11th century which solved not only the fuel shortage but greatly improved the iron and steel production. Canals connected the capital, Kaifeng, with Honan and Hopei and it became a vast market for the iron and steel. But the government continued to closely supervise the minting of coins (made from iron) and the manufacture of weapons and agricultural implements after 1083 with carefully controlled directives and taxation. A rising population meant that poverty did not disappear even in the face of the rising production, with the old story of "the rich got richer and the poor got poorer". (Ref. 5) It is one of the main hypotheses of the historian, William H. McNeill's recent book Pursuit of Power (Ref. 6) that China's rapid start toward industrialization and rapid change towards a market-regulated (as opposed to a "command" society) behavior in this and the next few centuries tipped a critical balance in world history. While politicians found it less and less possible to escape the effects of the financial market interchange, new forms of management and compromise between rulers, military power and money power had to be developed. (Ref. 7)

Paper currency was monopolized by the government in 1024. Movable type was available in 1040 as the invention of Pi Cheng, but little use was made of this and block type continued in use for a great profusion of literature. The compass was invented in the late part of this century. Inoculation for small-pox was accomplished by putting the crusts of pustules from active cases into the nose, a process which may have come from India. (Ref. 8, 9, 10, 11)

The years of the administration of Wang An Shih, Socialist prime minister as well as poet and writer, were from 1069 to 1076. He promoted regulation of industry, made codes of wages and prices, nationalized commerce, had state insurance against unemployment, poverty and old age and held examinations for public office. Wang An Shih considered that the carrying of arms was a disgrace, yet at the beginning of his term of office 80% of the government income was needed to support the approximately 1,000,000 despised soldiers. (Ref. 12) As taxes increased and military requirements expanded in order to repel northern invaders, opposition arose and finally the emperor discharged this illustrious premier and all those socialistic measures disappeared. (Ref. 13)

The main part of Manchuria, as well as adjacent Inner Mongolia,

was ruled throughout this century, as well as the previous one, by the Liao Dynasty of the Khitan tribe. In the northwest another powerful kingdom, the Hsi-hsia, was founded by the Tibetan Tanguts in Ninghsia and Kansu (now Gansu). Both of these groups tended to raid the classical Chinese borders, but they were kept pretty well in check by "brotherly gifts" from the Sung court of large amounts of silver and bolts of silk.² Even then, punitive campaigns had to be launched against the Tanguts in 1069 and again in 1081 - 1082. Sung China had a standing army of 1,250,000 by this time, but the people were losing the will to fight. In the far north of eastern Manchuria among the proto-Manchu Jurchen tribes, a new leader appeared who was later to give China much trouble. This was Wan-yen a-Kuta (1068-1123). His people were originally forest hunters in the mountains of eastern Manchuria but they became tough cavalymen whom both the Khitans and the Koreans tried to hold back by constructing walls and palisades. (Ref. 14, 15)

JAPAN

On the political front, this was the apex of the Fujiwara period. Michinaga's rule over his clan and the state resulted in some of the most brilliant decades of artistic and literary achievement, although there was much turbulence among the monks with frequent marches upon the capital and some actual fighting. In about 1080 the Minamoto clan in eastern and northern Japan began to establish dominance. The island population was not large enough to enable such killer diseases as measles to become endemic childhood illnesses and serious, repeated epidemics of these held back economic and cultural development of the islands. (Ref. 16)

KOREA

The greater part of this peninsula continued to be controlled by the kingdom of Koryo. As mentioned above, the Koreans were threatened by the Jurchen Manchurians and by 1044 the former had completed a great wall across the northern border of their country to keep out the invaders. (Ref. 17)

SOUTHEAST ASIA

MAINLAND SOUTHEAST ASIA

Burma--In the first 1,000 years of the Christian era Indian forms of society, religion and arts had been carried to Burma by traders and colonists, but in this 11th century, having conquered and absorbed their non-Burmese neighbors, including Mon, Shans, Karens and Arakanese, the Burmese established their own kingdom which was to last 200 years.

King Anawratha introduced Buddhism, ruling from Pagan in upper Burma on the Irrawaddy River, as the major political and artistic center. The Burmese language was developed and Buddhist scriptures were translated into this tongue. (Ref. [18](#), [19](#))

Thailand

This became a province of the great Khmer Empire of Cambodia in this century. It was a river empire on the lower Mekong. (Ref. [20](#))

Angkor

The main Khmer kingdom continued toward the peak of its civilization around Angkor. (Ref. [21](#))

Champa: Annam

This area, which is now North Viet Nam, became independent of China. This was the source of early maturing rice which, when imported in China, allowed the two harvests a year.

INDONESIA AND ADJACENT ISLANDS

Sumatra--Srivijaya was a prominent, Indianized state which was attacked by the Cholas of southern India near the end of the century. Following this attack their empire began to decline.

Java

In 1006 a disaster struck in the center of Java in the region of the great temple of Borobudur. A devastating earthquake and the eruption of the volcano Merapi covered the landscape and the temple with lava, ash and land slides. The population fled, probably to the eastern part of the island where Majapahit arose as another great Indianized state. The holy Buddhist place was abandoned and forgotten for more than 800 years, with time and weather and earthquakes taking their toll. (Ref. [22](#))

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1. In later centuries this was to be reduced to 30 days, through seed breeding. (Ref. 3)
2. It is interesting to recall that at this same time the English were similarly paying Danegeld to hold off the Danes

The Far East: A.D. 1101 to 1200

THE FAR EAST

CHINA AND MANCHURIA (Sung to 1127, then Southern Sung Dynasty)

At this time there were perhaps 100,000,000 people in China. There was notable development of maritime and rivertine trade and great cities arose on the coast and along the Yangtze River, with merchant vessels going to the Indian Ocean and South Asia. Cotton sails¹, adjustable center-boards, larger vessels and the compass all contributed to this increased sea activity. The mathematicians of China of this era may have been the best in the world. Gun-powder was first used in war in 1161. (Ref. [1](#)) Although there was general prosperity paupers were not eliminated and impoverished rural folks swarmed into towns hoping for work, even as has occurred throughout the world many, many times since. Public relief activities were begun in 1103 but were only partially successful and even in 1125 some were still sleeping in the streets.

The Tungusic speaking tribes of central Manchuria, the Jurchen, who were the ancestors of the later Manchus, arose against their Khitan masters in Manchuria in 1114 under the leadership of Wanyen A-ku-ta, proclaimed the Chin Dynasty² and aided by the Chinese Sung, destroyed the Liao Empire as early as 1125, taking Peking in 1126. Then the Chin turned on the Sung and conquered all of north China, leaving terrible devastation behind them. The Jurchen had already gained access to Chinese artisan skills and had improved armor and a greater supply of metal for weapons. (Ref. [3](#)) The northern Sung capital, Kaifeng, was soon brought under siege and when that city ran out of supplies and the people had to turn to cannibalism, the Sung government withdrew and headed south to what is now known as Hangchow. For more than a decade Jurchen

and Chinese armies struggled for control of the Yangtze Valley. After 1127 the Chinese dynasty was known as the "Southern Sung", who established their new capital at Hangchow in 1138. They came to rely on specially designed warships to guard against the Jurchen horsemen. These vessels included armored ships driven by treadmills and paddle wheels, used particularly for river and canal fighting. Crossbowmen, pikemen and projectile throwing machines were mainstays; hundreds of ships and as many as 52,000 men were used. (Ref. 4)

In spite of continued political and military troubles Chinese economy and culture flourished with new agricultural technology and productivity. The south coastal regions were fully assimilated and populated by Chinese and merchant ships from Southeast Asia and the Indian Ocean jammed the coastal harbors. The mountainous topography south of the Yangtze hindered the use of canals and riverways there so the merchants had to take to the open seas. Commerce with other peoples could be subject to excise taxes and by 1137 about 1/5 of the emperor's government income came from those taxes on maritime trade. Hang-chow had a population in the millions. Both block and movable type was used to promote printing and great libraries were collected. The heavy military cost, the tributary payments which had to be made to the Jurchen and heavy reliance on paper money led to increasing inflation and increasing inequities between the rich and the poor. (Ref. 6, 7, 8, 9)

Chu Hsi (1130-1200) saved Confucianism for the Chinese by building upon the loose aphorisms of Confucius an orderly system of philosophy which helped the political and intellectual life for the next seven centuries. In the meantime the Jurchens had established the Chin (also Kin) Dynasty, with a capital at Peking. (Ref. 10, 11)

JAPAN

An ex-emperor, Shirakawa, effective ruler for two children emperors, in 1126 decreed a strict Buddhist rule against killing any living thing and even all fish-nets were collected and burned. (Ref. 12) But this was a feudal age in Japan and local sources of authority grew in power as a distant government failed to maintain security and order. The people paid taxes to Shoguns, or generals, rather than to the central government. About 1192 a member of the

Minamoto clan, Yoritoma, getting his title of Shogun³ from the Emperor Go Toba, gathered an army and established an independent military authority at Kamakura. For the next several hundred years, although they never entirely ruled Japan, the Shoguns held the balance of military power in the nation while the emperors retained the spiritual powers. As indicated on page 530, in effect the emperors were "shielded" from foreign eyes while still remaining supreme in the final national decisions. Cultural activities continued and by this 12th century Japanese lacquer had surpassed both Chinese and Korean. By 1185 Kyoto had about 1,500,000 people, surpassed probably only by Constantinople, Cordoba and possibly Hangchow.

KOREA

The Jurchen Chin Dynasty of Manchuria forced the - Koryo kingdom of Korea to submission early in the century. This affected the people as a whole very little and there was no change then until 1170 when military officers seized the government and condemned Buddhism, describing it as dangerous. Some 26 years passed before the Ch'oe family could gain central control again and establish a new native dynasty.

SOUTHEAST ASIA

Burma remained a fully sovereign state in its Pagan Period. Thailand continued as part of the Khmer Empire which now reached its greatest extent in Cambodia under Suryavarman II (1113-1150), who built the temple tomb of Angkor Wat and extended the Angkor power from the China Sea to the Indian Ocean. This great power and wealth was continued under Jayavarman VII at the end of the century, even though in between these two great leaders, considerable trouble had developed with a civil uprising and a murderous invasion in 1170 by neighboring Chams, who actually temporarily took Angkor. In Indonesia, Sumatra and Java remained as separate entities, as in the last century. (Ref. [14](#), [15](#), [16](#), [17](#))

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1. Cotton reached China from India in this century and spread extremely rapidly. (Ref. 2)
2. "Chin" here means "gold", as a symbolic name for the Jurchen Dynasty. (Ref. 5)
3. The complete title was "Sei-i Dai Shogun", meaning "Great Barbarian-suppressing General". (Ref. 13)

The Far East: A.D. 1201 to 1300

THE FAR EAST

CHINA AND MANCHURIA (Southern Sung to 1279, Yuan after 1264)

Before the Mongols hit China in this century it was more populous, productive, wealthy, orderly and stable and had a more advanced science and technology than contemporary Europe. It was the world's greatest power and its culture the most splendid, with the Jurchen Chin, now Sinicized considerably, ruling in the north and the Sung in the south. Hangchow, at the height of the Southern Sung days, is said to have had a population between 1,000,000 and 1,500,000, with 17 amusement districts, including theaters with multiple tiers of balconies. Although coke was probably known to the Chinese at this time, they did not utilize it, waiting for England to do so five centuries later as the breakthrough inaugurating the industrial revolution. They did have excellent steel, however, and China was probably the original source of damask steel, as we have previously intimated. (Ref. [1](#))

China bore the brunt of the Mongol invasion more than any other country. It has been postulated that the gradual drying up of the regions behind the northwestern frontier, making the desert incapable of supporting the hardy Mongol population, had forced them, under their fiery leader Genghis Khan, to win new fields. He had ridden some 1,200 miles across the Gobi Desert and pierced the Great Wall of China, invading the independent Chin Empire as early as 1211. Then, while preparing to invade Khwarizm, the khan had left the eastern campaign against the Chin to Mukali. In this conquest of northern China, the Mongols caused immense destruction. Much of the land went out of cultivation, ninety some towns were left in rubble and Peking burned for more than a month

in 1215. When Mukali died, the emperor of Chin signed a treaty with the Great Khan's impudent vassal, the king of the Tibetan Tanguts of the imperial state of Hsi Hsia. Later in the 1220s Genghis again personally started for China but decided to liquidate the Tanguts on the way. When the Mongols reached the Tangut stronghold at Ning-Hsia on the old China Wall, the old khan had actually died enroute, but the gates were forced open and every living creature was slaughtered. On the return to Mongolia Genghis was buried, along with 40 jewelled slave girls and 40 fine horses. (Ref. 2, 3, 4, 5)

Genghis Khan's successors, Ogedei, Mangku and Kublai in turn continued aggression against the Southern Sung, with Kublai finally establishing the Yuan¹ Dynasty of China in 1260². Kublai is known in Chinese history by his posthumous temple designation, Shih-tsu. The Sung valiantly defended two walled cities in the Yangtze Valley, Hsiang-yang and Fan-ch'eng, but the Mongols brought in siege specialists from the Near East and with the help of a newly built navy conquered both in 1273 after 4 or 5 years of almost continuous siege. The Asians then surged through the south, taking Hangchow in 1276. The khan and his family had no political need to adopt the Toaist religion of their Chinese subjects because the latter took no part in the high government and were treated as second class citizens, forbidden to marry Mongols or learn their language. Kublai did not share his grandfather's admiration for the Chinese learned Mandarins and his ministers were Moslems, Nestorians or Buddhists from the western part of the empire. If Kublai had any preference it was for the Shamanistic Tibetan version of Buddhism. In 1260 the Lama 'Phags-pa, best remembered for devising an alphabetic script for the Mongolian language, was named Kublai's mentor and given viceregal authority in Tibet.

For awhile Kublai Khan had as his "roving secretary of state" the Catholic, Marco Polo, who was especially impressed with the size of the capital city, Kanbalu (Peking) and with the road system which included the posting stations, each having up to 400 horses. He estimated that the Great Khan kept some 200,000 horses and 10,000 posts on the Silk Road. (Ref. 9) The Khan insisted on imperial administration of the iron producing regions of Hopei and Honan but by that time production had sunk from the previous 35,000 tons per annum down to about 8,000 tons and this was exclusively consigned to equipping the Mongol armies with armor

and weapons. Iron production was not restored to its former level, in part because of vast disasters to the canal system following an 1194 flooding of the Yellow River, with subsequent establishment of a new path to the sea. The canals were never restored. (Ref. [10](#))

At the time of Polo's visit to Hangchow, ships from the Indies brought spices and left with Chinese silks. This was a metropolitan city with Arabs, Persians and Christians and there were hotels, restaurants, taverns and tea houses. Under the Yuan Dynasty, however, the country's productivity fell and commerce was disrupted. In the countryside people ate snakes, grasshoppers and rats. Southwestern China, the present Szechuan and Yunnan, had a different people, cut off from the rest of the nation and there Marco Polo³ ate mutton, buffalo beef and poultry - raw. In far western China at Jiayuguan, the mul- berry trees died of neglect as the Silk Route had shifted to the north and for this and the next centuries, life in this area was very harsh. In contrast, northern China still apparently grew much grain. (Ref. [11](#), [12](#), [13](#), [14](#), [15](#))

In spite of many deficiencies, Kublai did promote many public projects, patronized education, letters and arts, carried out many socialistic measures⁴, revised the calendar and promoted architecture to its greatest height, but he never truly became Sinicized. When he died in 1294, the titular supremacy of the Supreme Khan disappeared, but at its highest point this far eastern Mongol Empire contained all of China, Korea, some of Southeast Asia and Mongolia. (Ref. [16](#))

As in India, metallic guns were in use in China by 1275. (Ref. [18](#)) Economic difficulties of this and the next century, inherent in the archaic circulation of heavy *caixas* of copper or iron and the enlivened external trade along the Silk Route, was partially solved by the use of paper money. This not only facilitated internal payments between provinces but reserved silver for trade with Central Asia and the West. (Ref. [19](#))

JAPAN

About 1200 Zen Buddhism arrived in Japan from China as an antagonist to the ritualism and intellectualism of earlier sects. As the Kamakura Bakufu Dynasty weakened, a rival family had set up the Hojo Regency in 1199, ruling the Shoguns, who in turn "ruled" the emperors for the next 134 years. In 1268, during the supremacy

of the first shogun family, the Genji, envoys from Kublai Khan arrived in Japan with a letter ordering that country to submit to Mongol suzerainty or be invaded. The envoys were returned with no answer, so Kublai ordered his vassal kings in Korea to construct a great invasion fleet and for six years both nations prepared for the coming battle. In 1274, 15,000 Mongols and 8,000 Koreans⁵ sailed for southern Japan, first attacking two small islands just off Kyushu. The Japanese garrisons on the islands fought until the last man was dead. The invasion fleet then landed at Hakata where the Japanese fought a savage holding action on the beaches, awaiting reinforcements from central Kyushu. When a severe storm came that night, sinking 200 ships, the Mongol generals, who had already lost 13,000 of their 23,000 men, had an excuse to retreat to Korea. Kublai Khan was not about to give up, however, and in the following year he again sent envoys to Japan demanding surrender. This time the envoys heads were cut off, in the charming manner often seen in those times. Kublai was busy advancing into south China at the moment, so it was another six years before he returned to launch his next attack on Japan. In the meantime the Japanese had built hundreds of firefly boats to harass the Chinese war junks and had constructed a stone wall more than 100 miles long and 2,5 meters high with which to contain the most likely beachheads in Hakata Bay. In 1281 Kublai impressed all the junks of Canton and Korea and sent 4,400 ships and an army of 142,000 troops⁶, including 40,000 of his own Mongols, landing them in greatest strength at the two ends of the stone wall in Hakata Bay. There was desperate hand to hand battle for 53 days before a hurricane Kamikaze, "the divine wind", arrived to almost destroy the Mongol fleet over a 48 hour period. Only perhaps one-half of the 140,000 Chinese and Mongols returned to the mainland. Some estimates give 4,000 ships sunk and 100,000 casualties. The Mongols never threatened Japan again.

Only in this century did Japan's population become great enough to allow the threshold to be crossed from epidemic to endemic disease, so that measles and small-pox became "children's diseases". The dynamic growth occurred with the population jumping from 4,410,000 about A.D. 1000 to 9,750,000 by about A.D. 1200. (Ref. 22)

KOREA

After the Mongols had conquered the Chin on the northern Chinese mainland, they reached Korea by 1235 and through intermarriage, the Koryo kings became merely a branch of the Mongol imperial family. This, and the rise of Confucianism, led to acceptance of Chinese leadership in political and cultural matters. Mongol influence remained until well into the middle of the next century. (Ref. [23](#), [24](#), [25](#))

SOUTHEAST ASIA

In Burma, Ava developed on the upper Irrawaddy, Toungoo on the Sittang and Pegu became the capital of a new Mon kingdom of the south. All of these were Theravada

Buddhist areas and they had stupas, not temples, as places of worship. Ancestors of the modern Thai entered the country from Yunnan and founded dynasties with capitals at Cheingmae and Ayuthia (near modern Bangkok). By the end of the century Buddhist monks from Ceylon had converted the Thai and there resulted Buddhist art and ceramics, with a marked preference for a green glaze, imitating the famous Chinese celadon. (Ref. [26](#))

We noted in the last chapter that the Chams had taken over Angkor, but Jayavarman VII, although already in his 50s, launched a merciless counter-attack and drove them out, allowing him then to continue to build Angkor's royal city complex. He rebuilt Angkor Thom as his own royal capital and added 10 miles to the original walls of the city as well as constructing many monuments and temples in all the cities of his empire. He also ordered 102 hospitals and 121 hostels built along the hundreds of miles of highways. Jayavarman VII died about 1219 and from then on no Khmer king undertook such projects and the dynasty actually went into decline. Many social and economic factors contributed to this weakness, including the gradual migration of the Thais and Vietnamese southward out of the Khmer sphere of influence. The capital city, however, maintained its magnificence. (Ref. [27](#)) Phnom Penh was developed on the Mekong in this century. After Mongol attacks, Burma, Siam, Annam and Champa all accepted vassal status to the Yuan Dynasty.

One Mongol expedition, using a rebuilt navy, even hit Java in

1292 and 1293, but no settlements were made and they did not establish enduring control over the island. They did help a son-in-law of a recently killed king of the Srivijaya Dynasty put down the rebel murderers, but then the Mongols themselves were trapped and the son-in-law, Vijaya, started a new dynasty with a capital at Majapahit. This Hindu empire ruled a large part of present day Indonesia from 1291 to 1513, although Islam was already being brought to Sumatra by Arab traders. (Ref. [28](#), [29](#), [30](#), [31](#))

The use of metallic guns drifted into southeast Asia at the end of the century from India and China, so that it is possible that Philipinos saw gun-fire before Frenchmen did. (Ref. [32](#))

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1. "Yuan" means "a beginning"
2. This date is from Chambers (Ref. 6) Others, such as The Times Atlas of World History, (Ref. 7), state that this dynasty began at 1280 and Charles Hucker (Ref. 8) gives 1264
3. See map of Marco Polo's journeys on page 753
4. The source for this, Will Durant (Ref. 17), assumed that socialistic measures were always good
5. These are Bergamini's figures. (Ref. 20) Mozai (Ref. 21) says there were 40,000 men in 900 ships
6. This represents about 34 times as many ships and 5 times as many men as in the famous Spanish Armada

The Far East: A.D. 1301 to 1400

THE FAR EAST

CHINA AND MANCHURIA (Yuan Dynasty to 1368, then Ming)

By the beginning of this century the use of moveable, wooden characters for printing had become widespread in China and had even spread to - Turkestan. (Ref. [1](#)) In the early decades as much grain was carried in seagoing vessels as moved on the canals, in part because improvement of navigation techniques shortened the sea trip along the coast. The use of great rafts began at this time with tree trunks tied together with a type of wicker rope to bring wood from Szechwan down to Peking. For the open sea they had large, four-deck junks with water-tight compartments, four to six masts carrying up to 12 large sails and manned by about 1,000 men. Local rebellions and sea piracy soon became problems that interfered with long distance shipping, however, and even before the collapse of the Mongol Dynasty sea shipments had become markedly reduced. (Ref. [2](#), [3](#)) The use of the Chinese abacus for calculations and the Indian decimal system had already traveled to the western world across the southern seas and had helped to stimulate trade.

The Yuan (Mongol) Dynasty faltered as the Mongols lost power in Europe and western Asia. The bubonic plague spread eastward, also, so that in 1331 9/10 of the population of Hopei died and between 1353 and 1354 perhaps 2/3 of the entire population of China expired. This, combined with civil war occurring as the Mongols were beginning to be overthrown after 1335, along with disastrous floods in the eastern plains from 1254 to 1359, wrecked havoc on China's population and it dropped from 123 million about A.D. 1,200 to 65 million in 1393. The revolt against the Yuan rulers

was led in 1368 by an ex-Buddhist monk, Chu Yuan-chang, who burned the great Mongol center at Karakorum in the Gobi desert and entered Nanking in triumph, proclaiming himself the first emperor of the Ming or Brilliant Dynasty. It was not until 1387-8 that all of China was conquered and the Mongols were finally completely defeated. The use of cannon by the Mings helped in their victory. (Ref. 4, 5)

The Ming revised agriculture by rebuilding irrigation and drainage works and carrying out reforestation projects so that another period of prosperity developed by the end of the century. By 1380 the population of the south was 21/2 times that of the north, because of rice cultivation, with 2 or 3 harvests a year. (Ref.6) At first the Ming had an aggressive foreign policy, with campaigns against the Mongols in the far north and- the restoration of Korea to vassal status. (1369). The Ming also rebuilt the navy. A Chinese ship of that period, now being recovered from under water near South Korea, reveals a three-masted junk with squared off ends, flat bottom without keel and bulk heads dividing the ship into compartments. The ship had many treasures, including porcelain, lacquer ware and bronze and iron cooking utensils and silver and iron ingots. (Ref. 7, 8, 9, 10, 11)

Chaulmoogra Oil was used for leprosy in this century, but even the Chinese seemed to find no solution for the plague. Tuberculosis may have occurred and venereal disease, although not well defined, was present and treated with a variety of therapies, including metals. (Ref. 12, 13)

JAPAN

After their victory over the Mongols, which was detailed in the last chapter, the Japanese fought among themselves and the role of the Shoguns in Kamakura deteriorated. In 1333 the Hojos power came to an end as Go Daigo got the rival Minamoto and Ashikaga clans rallied to him to defeat the degenerated Hojos and make him emperor. The Ashikagas then turned on Go Daigo, however, and established their own puppet emperor, Kogon, organizing the Ashikaga Shogunate which was to rule for 250 years of chaos and civil war. In this period in Japan, skill at arms, rather than family pedigree, was the best way to win and hold land.

There were two imperial courts from 1339 to 1392, a southern

and a northern one. True Shintoists considered the former to be the true court because it had the imperial regalia - the mirror, sword and necklace. Actually, by the rules of primogeniture, the northerners had the better claim, but in 1392 they accepted a big financial settlement and ended the schism by returning to Kyoto. But settling the schism brought no lasting peace and civil wars raged on continuously in the next century. (Ref. [14](#))

KOREA

Surviving a short period of Mongolian overlordship, the Koryo Dynasty continued through most of this century as in the previous one, subject, however, to Ming overlordship after 1369. In 1392 General Yi Song-gye, with the help of the Mings, overthrew the Koryos and took over the throne in Songdo (Kaesong), which is now in North Korea. He then changed his capital to Hansong (present day Seoul) and ruled as king of the Yi Dynasty, one which was to dominate Korea for the next 500 years. Yi Song-gye later became known as King Taejo, which means "great original ancestor". This new dynasty rejected Buddhism in favor of Chinese Confucianism. (Ref. [15](#), [16](#))

SOUTHEAST ASIA

In the area of Burma several independent states emerged - the Burmese proper about Ava in the north and Mons about the city of Pegu in the south, but other peoples were evolving slowly, also. In Siam, the Thai political center moved south to Aijutthaya about 1350 and formed the modern state of Thailand. The Thai converted to Buddhism, but the Moslems won the coasts. The Khmers now had abandoned Ankor and retreated to the Mekong. Pagan declined after the Mongol invasion and Shan princes assumed rule over the northern portions. The Shans were Theravada Buddhists who lived with a distinctive structure of feudal states. The men wore turbans and were of ten heavily tattooed. In Vietnam, the Chinese lost their hold and a new kingdom, Dai-Viet, appeared and absorbed the Kingdom of Champa. (Ref. [17](#))

Islam had pretty well won the contest of religions in the southern island empires. On Sumatra, Malacca took the place of Srivijaya and Islam began to spread into the archipelago to be halted only two

centuries later by the Spanish seizure of Manila. The Empire of Majapahit continued as the greatest of the Indo-Javanese kingdoms and Arabs and Persians came there to trade. The Malays, who settled the peninsula named after them, came in this century from Sumatra. (Ref. 18)

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The Far East: A.D. 1401 to 1500

THE FAR EAST

CHINA AND MANCHURIA (Ming Dynasty)

In 1428 the Ming Empire was divided into thirteen provinces, plus the two metropolitan areas of Peking and Nanking. China's canal system was enlarged and nothing in the world equaled China's internal water traffic and trade. Eventually some of the river rafts were three miles long, able to ingeniously fold so as to make the bends in the rivers. (Ref. [1](#)) Fortunately the invention and construction of deep water locks throughout the length of the Grand Canal allowed the use of that canal 12 months a year, without having to worry about high and low water periods. (Ref. [2](#))

In addition, great maritime expeditions established Chinese hegemony over the key commercial centers of the Indian Ocean, the Malacca straits, Ceylon, Calicut and less definitely at the Persian Gulf. By 1420 the navy was comprised of at least 3,800 ships of which 1,350 were fighting vessels, including 400 large floating fortresses. (Ref. [3](#)) Between 1405 and 1433 a Chinese Admiral Cheng-ho, actually a Moslem eunuch, had made seven voyages into the Indian Ocean, bringing back objects from Java, Ceylon and even East Africa. He had 62 ships, the largest vessels probably displacing about 1,500 tons¹ and carrying 28,000 men. Including the expeditions under other leaders there were perhaps some 250 vessels participating in the various overseas projects, all of which came to an abrupt halt in 1434 when the emperor suddenly ordered the expeditions stopped and prohibited any further ship construction. The result of this was delivery of the China coast into the hands of the Japanese² and Malay pirates along with the Portuguese sailors. (Ref. [4](#), [5](#), [6](#), [7](#))

Politically, Ming China was somewhat subdued, because of the

previous excesses of the Mongol Dynasty and some conscious social leveling affected by the early Ming rulers.

The rich were humbled, slavery was abolished and the poor were pampered with low rental, state land and gifts of seeds, tools and farm animals. China received her horses from Asia, particularly through special frontier fairs in Mongolia and Manchuria. (Ref. 10) Fairs were not seen in the number and way that we met in Europe. When the nation was pretty well unified under the Mings, the fairs almost -completely disappeared from the interior and appeared only on the external frontiers, as noted regarding the horse fairs near Manchuria. Occasionally a caravan would arrive from Moscow, setting up fairs in Hanchu or Cheng Tun. (Ref. 11)

In the first half of the century metal characters for use as moveable type were perfected (this may actually have been done in Korea) and these soon became widely used for 50 years before the Gutenberg "invention". Inflation, which had been occurring over several centuries, now reached the point where 1,000 paper notes were required for 3 *caixas* of cash, so the state abandoned the paper money and private banks put it out only for local needs. As paper money disappeared, rice reappeared as a money substitute for exchange. (Ref. 12)

There was still intermittent warfare and civil uprisings. The third Ming emperor, Ch'eng-tsu, came to power by overthrowing his nephew, after three years of civil war, but he rebuilt Peking and reconstructed the silted-up Grand Canal, thus allowing grain and textiles to come to the city from the rich southeast. He bullied Japan into nominal vassalage for the first time. In the middle of the century the emperor Ying-tsung (era name - Tien-shun) was taken captive and his court slaughtered by a Mongol raider, Esen. Rural problems also led to a number of rebellions, chiefly in the central and southeastern China, leading to a million deaths. (Ref. 13, 14)

JAPAN

Although organization and administration was sometimes neglected and chaotic, many of the dictators of the Ashikaga Shogunate were patrons of the arts and collected pieces that are prizes of collectors today. Local rulers of wide territories were called *daimyos*, meaning "feudal lords" and their subordinate soldiery were *samurai*, a word originally simply meaning "attendant". In the civil wars which raged

throughout Japan, sometimes an entire clan family would be killed off and then their remaining fighting retainers would become masterless samurai or- *ronin* (wave-men). Some of these became pirates, terrorizing the coast of China and even the Philippines. (Ref. 15) In 1428, transport workers struck in protest against high prices and they, backed by farmers, rioted in the streets and wrecked warehouses, temples and houses. (Ref. 16)

Towns developed, eventually becoming the modern cities of Osaka, Kobe and Fukuoka. Kyoto was the undisputed political and cultural capital. This was still a thoroughly Buddhist age in Japan, but intellectual life began to free itself from the bonds of religion. The Ashikaga power began to decline early in the century and the Onin War (1467-77) began a hundred years of strife between the feudal lords. (Ref. 17, 18)

KOREA

The new Yi Dynasty was dominated by the Chinese and there was a suppression of Buddhism. Japanese pirate raids subsided somewhat and Korea had a period of great prosperity and cultural development. King Sejong (1419-1451) was a great patron of learning. It was at this time that the native phonetic script called "Onmun" was introduced and it is possible that the movable metal printing characters mentioned above were actually developed in Korea. (Ref. 19, 20)

SOUTHEAST ASIA

The Chinese Ming occupied Annam (Vietnam), through their navy, from 1407 to 1427, but then met resistance and finally allowed the region its independence in 1428. A Lao tribal monarch established the Laotian Kingdom of Lan Xang in mid-century. This included present day Laos and much of northern and eastern Thailand. The Siamese (Thai), under King Trailok, had centralized bureaucracy and a codified system of law. They ravaged Angkor in 1431 and took over a great part of the southern Khmer Empire, leaving them only what is now the general area of Cambodia and which was then called "Kambuja". After the sacking of Angkor the Siamese went home with as much loot as they could carry and when they returned for more a year later the city, where once there had been a

million people, was deserted. No one knows where the people went, but through neglect the huge reservoirs, canals, roads and bridges all gave way to the jungle. (Ref. 21, 22, 23) Braudel (Ref. 24) says that the Siamese attacks upset the daily life and agriculture so that the rice field water cleared, allowing the malaria carrying mosquitoes to thrive and that the disease apparently decimated the population.

Northern Burma was under the Shan power while southern Burma was under the Mon (Pegu). The new Vietnamese kingdom of Dai-Viet gradually absorbed Champa territory, annexing its capital, Vijaya, in 1471. (Ref. 25)

Since the Moluccas Islands and Malay, along with Ceylon, were the source of almost all spices, Malacca became an international port, shipping to China and the Malabar coast of India from where Arabs, Indians and Persians took over for further distribution. Built in a dismal swamp almost inaccessible by land, Malacca had been of no importance except as a pirate storage headquarters until in this and the preceding century it became a port for peaceable shipping. (Ref. 26) The men of Islam overthrew the old Majapahit Empire and their religion, which had been introduced into the Malayan archipelago from India in the 10th century, now finally became dominant as the Hindus were driven to Bali and a few other islands. (Ref. 27, 28)

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1. In comparison, Vasco da Gama's flagship displaced only 300 tons. (Ref. 8)
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The Far East: A.D. 1501 to 1600

THE FAR EAST

CHINA AND MANCHURIA (Continued Ming Dynasty)

The virulent form of syphilis, supposedly generated by the interaction of Columbus' men and the Caribbean Indians, reached China about 1505. (Ref. 1, 2) The population about 1580 has been estimated at 130,000,000, although drastic reduction occurred at the end of the century by plague. New crops, including sorghum, sweet potato, maize, peanuts and Irish potatoes were helping to feed the people. Commerce was stimulated by silver from the new world, received in payment for extensive Chinese exports of tea, silk and ceramics. By 1600 the state had converted almost all its revenues to money in the form of silver. (Ref. 3, 4, 5) In contrast to the West, China had no gradual rise of bourgeoisie as the nature of the state almost prohibited this. A temporary exception might have occurred at the end of this century in the development of the large iron works near Peking and the private porcelain work shops of King-to-chen and the silk trade of Su-Chu. This all stopped with the Manchu conquest in the next century. (Ref. 6)

Throughout its history China has usually had a command economy with prices and production centrally and rigidly controlled in one way or another¹. By making large scale private accumulation of capital difficult or impossible, the pace of economic development and technological innovation was markedly restricted. Thus in this century while European countries were developing new, better and cheaper weaponry, China held fast to large siege cannons and no one had the means or motive for developing gunpowder weaponry in new directions. The resulting lag behind European military and technological development cost them dearly in the long run. (Ref. 7)

During the Ming Dynasty, about 1517, the Portuguese arrived at Canton with their guns. Being little better than pirates the Chinese treated them as such, although the foreigners did give some aid against other pirates. The Chinese thus finally rewarded them in 1557 by allowing them to settle Macao and to govern it. The Portuguese proceeded to build great opium factories employing men, women and children, all of which brought millions of dollars yearly to the Portuguese provincial government. They were followed by the Spanish, who after taking the Philippines, moved over to take the Chinese island of Formosa after 1571. The Dutch came still later.

It was probably in this century that the compilation of the Great Herbal in 52 volumes, with information about 1,200 herbs, was completed - an authoritative work in China still today. There are many medical adaptations from Chinese medicine in the western world, including iron for anemia, castor oil, lanolin, camphor, chaulmoogra oil, ephedra vulgaris and a method of inoculation with small pox matter for immunization against that disease².

The Portuguese establishment at Macao, permanent by 1557, was only a minor irritant, but at the same time China was under constant pressure from a Mongol power under Altan Khan in the north and from attacks by Japanese pirates along the coast. Huge armies also had to be sent to aid Korea, when the Japanese invaded there. All of this coincided with a decline in the authority of the Ming government, with power actually passing – into the hands of the palace eunuchs³, who, with their own armies and secret police, were able to terrorize officials and populace and extort heavy taxes. (Ref. 9)

Jurchens of Manchuria were fairly well controlled by the Chinese government until about 1580 when they fought back to again take complete control of that country.

JAPAN

It was mentioned in the last chapter that many samurai turned pirate. By 1550 the kings of Burma, Siam and Cambodia all employed Japanese cut-throats for their personal body guards and Japanese pirate traders were at their height, even in Siamese, Philippine and Korean waters. In spite of feudal, clan wars through the country the common people of Japan prospered and the

population rose from 15 to 25 million, a figure 2 times that of France, 4 times that of Spain and 5 times that of England. The artisan and merchant classes grew rich on war profits and traders did well with lacquer and steel wares as far away as Calcutta. Some silver and copper even went to Europe. At the same time, however, the imperial fortunes went down so that Emperor Go-Nara (1526-1557) even peddled samples of his calligraphy on the Kyoto streets to regain a fortune. (Ref. [11](#), [12](#))

In 1542 the first Portuguese ship called at ports in Kyushu and by 1573 the port of Sakai had become a free market and town. Soon powerful craft guilds extended their networks and monopolies from one town to another. In 1549 Francis Xavier, the great Jesuit, arrived and made 150,000 converts, even including some of the great lords, to Christianity in a single generation. Although closely watched, after two years Xavier extracted the taboo information that there was an emperor in Japan above the Shogun, but he never did see him and no westerner saw an emperor for yet another 300 years. The Portuguese had guns, of course, and it didn't take the Japanese long to copy and then improve on the few which they bought from the westerners. Japan had copper and got tin from Malaysia to make new bronze cannon. (Ref. [13](#), [14](#))

Oda Nobunaga, of both imperial and Fujiwara lineage and ruler over a small fief, including the port of Nagoya, was a military genius, who defeated all the major clan lords between Tokyo and Kyoto by 1568, using foot soldiers equipped with matchlocks. He deposed the Shogun and set up a puppet in his place as he began to build the Emperor Ogimachi a magnificent new palace. Then with the emperor's sanction, he destroyed various feuding barons and all but one Buddhist monastery in Japan. With Christians he was lenient. In 1575, at 41 years of age, Oda met the lords of the north coast at Narashino in the biggest battle of all - commanding 100,000 men with cannon and muskets. There was no battle in Europe to compare with this for another century. Oda was finally assassinated but during his career Kyoto had climbed from a population of 20,000 in 1550 to almost 500,000.

His place as head of the army was taken immediately by the most talented of his staff, Hideyoshi, son of a peasant foot soldier. He gave the emperor allegiance and completed the unification of Japan. He was the one man in Japanese history, up until 1945, who really ruled Japan and yet was outside the pool of imperial blood.

Small arms and cannon made the older forms of fighting and fortification partially obsolete and facilitated the establishment of a single, central authority. (Ref. [15](#), [16](#))

In 1592 Hideyoshi set out to conquer China, dispatching 205,000 men to Pusan, but Korea was loyal at that time to China and many men were lost to Korean ships during the crossing. Still, the main army was at the Yalu River on China's border within 6 months, there to meet counter-attacks by more than a million Chinese troops. After a 3 year stalemate, Hideyoshi sent a second force and China sent another 2 million reinforcements. The war ended when the Koreans demolished the Japanese supply fleet, as will be detailed under KOREA, this chapter. Hideyoshi died in 1598 during peace negotiations, but for sheer carnage Europe would see nothing like this until Napoleon's campaign more than two centuries later. That Japanese general was given the name "Taiko", meaning "Great Sovereign" a word which has entered our own language as "tycoon". His invasion of Korea cost the lives of 260,000 men and ruined the Japanese peasantry, because their crops had been commandeered to feed the troops. (Ref. [17](#), [18](#)) We should note here, parenthetically, that carriages in Japan were normally pulled by Korean oxen and horses were primarily reserved for nobles. (Ref. [19](#))

KOREA

After the cruel ruler Yonsangun was overthrown by rebels, Chunjong came to the throne in 1507 and attempted to control the great families through the use of Confucian scholars as ministers. This led to the development of many bitterly antagonistic factions. With the decline of the Ming Dynasty in China, near the end of the century, there was a similar political and cultural decline in Korea. The Japanese invasions of 1592 to 1598 (See above) completed the devastation and made Korea the "hermit kingdom" isolated from the rest of the world. (Ref. [20](#), [21](#), [22](#))

The Japanese crossed most of Korea and reached the Yalu River on their way to conquer China. They were held there by millions of Chinese troops, but it was a canny Korean Admiral Yi, who destroyed the Japanese wooden supply line ships by ramming them with the world's first iron clad ship, which was painted to look like a fierce turtle. This was 250 years before the Monitor and the Merrimac. The vessel was propelled by oar power and was a most

effective weapon against the frail Japanese boats. (Ref. [23](#)) Admiral Yi Sun-shin eventually made an entire fleet of "turtle boats", each armor-plated with what was probably 3/8 inch wrought iron, cut in hexagonal shapes and riveted together. Knives, spearheads and spikes were attached to the plating to deter enemy boarding. In separate actions in 1592 and again later in 1597, Yi destroyed or captured nearly 500 Japanese ships, with no Korean losses. (Ref. [24](#))

SOUTHEAST ASIA

CONTINENTAL SOUTHEAST ASIA

BURMA

At the beginning of the century the area of present day Burma consisted of

1. An Arakan monarchy, with a capital at Mrohaung
2. Burmese Ava in the main Irrawaddy Valley, captured by the Shans in 1527 (Ref. [25](#))
3. Burmese Toungoo in the Sittany Valley
4. Mon Pegu on the Irrawaddy delta and Tenasserim

To the north and east of Ava were a number of Shan states, but after some 300 years of divided rule, the Toungoo Dynasty conquered both the Shans and Mons in the middle of the century, making a united Burma. It then began two centuries of expansion eastward into Siam.

THAILAND (SIAM)

A powerful Thai kingdom existed, controlling much of the eastern coast of the Malay Peninsula. In the last half of the century tin was exported to Europe to supplement the Cornish tin mines. (Ref. [26](#))

LAOS

The Laos kingdom of Luang Prabang stretched along the upper and middle Mekong.

MALAY PENINSULA

The eastern coast was controlled by the Siamese while Malacca, on

the west, had been conquered in 1511 by the Portuguese, who then controlled the spice and tin trade of the world. Had the remaining Malay states united they might have been able to drive out the invading Portuguese, but they fought against one another, instead. (Ref. 27) When the value of bronze artillery became known to the rulers of India, China and Japan, Malayan tin became critically important. (Ref. 28)

INDONESIA AND ADJACENT ISLANDS

Portugal also had stations on Java and Borneo to further consolidate their far eastern trade. In "greater" Java the chief town was Bantam, even for some time after the Dutch built Batavia, in 1619. Bantam was on the northwest tip of the island, surrounded by swamps, with red brick walls and cannon. Three streets leading away from the royal palace were filled with vendors of poultry, parrots, fish, meat, hot cakes, silks, thread, precious stones and what-not. But to the east of the city there was a square where large scale merchants, investors and shippers met. The Chinese played a large role in this gathering, of ten buying up produce for months before the trading ships from the west could arrive on the monsoon winds. (Ref. 29) By the end of the century the Dutch were making their appearance by setting up a factory on Sumatra. The Spaniards had established themselves in the Philippines with a capital at Manila by 1571 after the islands had first been "discovered" by Magellan⁴ in 1521. The-Spanish exchanged Mexican silver for Chinese silk with galleons sailing back and forth from Acapulco to Manilla quite regularly after 1572. (Ref. 30) The Muslim states on Mindanao retained their independence from Spain for another three centuries. (Ref. 31, 32)

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On his around the world trip his men had no fresh food for almost 4 months and there was terrible morbidity and death from scurvy. (Ref. 34) (In Portuguese - Fernao Magalhaes) (Ref. 35)

Except for the island of Bali, the Islamic faith had completely replaced Hinduism and Buddhism in Indonesia by the end of the century and the old Majapahit Kingdom was broken up into a

number of small, weak Muslim states, no match for the invading Europeans. (Ref. 36)

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1. Even today this central command economy continues under the communist regime and has resulted in extensive economic and social woes, as explained by Fox Butterfield in *China: Alive in the Bitter Sea* (Ref. 8)
2. These materials all came from China, but not necessarily from this 16th century
3. Eunuchs, made so in China by complete removal of external genitalia, had been used in the courts since ancient times. Ming emperors often had offending officials flogged in open court, the eunuchs flaying bared buttocks with wooden rods. (Ref. 10)
4. Magellan was killed on the Philippine island of Cebu in 1521 and of his original 5 ships only 2 made it to the Moluccas and only 18 of the original sailors got back to Seville. (Ref. 33)1

The Far East: A.D. 1601 to 1700

THE FAR EAST

CHINA AND MANCHURIA (*Ming Dynasty to 1644, then Ch'ing [Manchu]*)

The Ming government reached its lowest point early in the century when the young, indecisive emperor, Hsi-Tsung, gave dictatorial power to Wei Chung-hsien, the most notorious palace eunuch of all Chinese history. He proceeded to brutally purge the government of all dissidents. In the first decades of the century the Jurchens, originally called *Kin* and now called "Manchus" gradually expanded into the modern provinces of Liaoning and Kirin and established a first capital at Mukden (subsequently Shenyang) from 1625 to 1644. The Manchus owed their nationhood to Nurhachi and his son Abahai, starting as petty tribal chieftains selling medicinal herbs to Chinese settlers in Manchuria. Abahai ended as the strong emperor at Mukden. (Ref. 1) From this base the Manchus subdued inner Mongolia in 1629 and made Korea a vassal state in 1637. At about the same time the Russian advance to the Pacific was stopped as these Manchurian people confronted them at the Amur River. The Manchus then headed south to China, where the population at 1600 was about 150 million or 2 1/2 times as great as it had been in 1368. Braudell (Ref. 2) points out that the early settlement and precipitous rise in population were-possible because of the small amount of meat eaten. When one adds up calories available for human consumption, agriculture on a given amount of land will always have the advantage over stock raising, feeding from 10 to 20 times as many people. "The choice between cereals and meat depends on the number of people."¹ Early 17th century warfare reduced the total population drastically, however, as after 1627 there were waves of rebellions following crop failures in the

northwest. Disastrous droughts and plagues of locusts were among the natural disasters occurring and paralleling those in the France of Louis XIII.

The basic crop of China, of course, was rice, but occasionally a peasant could get in a wheat crop between his 2 yearly harvests of rice. The Chinese made a sort of heavy dough from the wheat, not knowing how to knead it and so it helped very little in their meager dietary supply. (Ref. 4) On the other hand, China had plenty of highly skilled artisans. The cotton works of Songjiang, south of Shanghai, employed 200,000 workers, not including tailoring and dressmaking, by the end of the century. Su-chi had between 3,000 and 4,000 silk-loom. (Ref. 5) Still by 1636 almost all of central, northern and northwestern China was in rebellion. In that same year 3 Portuguese cannon, hauled upon the Great Wall, put the Manchurian army to flight and gained another decade of life for the Ming Dynasty. Rebel leader Li Tzu-ch'eng from Honan and adjacent areas, took Peking in 1644 in spite of its wide, guarded walls. The last Ming emperor then committed suicide. We should note in passing that Peking participates in the cruel Siberian cold for 6 months of the year and thousands of Mandarins clothed themselves in expensive sable and had boots, saddles, chairs and tents made with those same skins. (Ref. 6)

Li, as the conqueror of Peking, never got to form a dynasty because of the almost immediate invasion of the Manchus, who came down from Liao-tung with the aid of some Chinese defectors. (Ref. 7) Driven south, the remnants of the Ming eventually occupied Taiwan (never previously under Chinese control) in 1662, wresting it from the Dutch and they remained there until 1683. These new Formosans, led particularly by Cheong Ch'eng-kung², pirated the mainland coast to such a degree that the Manchu regime made the populations within 10 miles of the coast move inland, to escape the raids. (Ref. 8) Some Ming also lived in Guilin (not far from Canton) and Jesuits, who accompanied the court, converted most of the remaining royal household to Christianity. Even the governor and commanding general of the Ming forces became Christians, chiefly through the efforts of the Italian Jesuit Rica, the German von Bell and the Belgian F. Verbiest. (Ref. 9, 10) Mings, forming the "Rebellion of the Three Feudatories", dominated almost all of south China for about 8 years, finally being suppressed by Chinese generals serving the Manchu Dynasty. (Ref. 11)

The Mongolians and Manchurians of the eastern steppe apparently learned to protect themselves against plague and it was this that allowed their populations and vigor to be augmented to the point that the Manchu could conquer China. (Ref. 13) Some might argue that their habit of eating meat in large slices (as the Mongols before them) might also have contributed. In China proper meat was rare (and thus their proteins deficient?). At any rate, the Manchus set up their own Ch'ing Dynasty which was to rule China until the 20th century. It was these foreign rulers who obliged the native Chinese to wear the Manchu pigtails as a mark of submission. The large robe, of former times, was also altered, but this did not amount to much and otherwise there was basically very little change. (Ref. 14) The invaders forbade intermarriage with the natives, but soon these conquerors, too, became "Chinese". The second ruler of the dynasty, K'ang-hsi, gave China the most prosperous, peaceful and enlightened reign in the nation's history. His realm, which included Mongolia, Manchuria, Korea, Indo-China, Annam, Tibet and Turkestan was the largest, richest and most populous empire of its time. His rule was more wise and just than that of his contemporaries, Aurangzeb and Louis XIV. All the emperors of the Ch'ing Dynasty lived in magnificent style. When Father Verbiest traveled with the emperor in Manchuria in 1682, the retinue was accompanied by 100,000 horses and in a hunt, 1,000 stags and 60 tigers were killed in 1 day. The Manchus were tough and smart. In 1689 when a final treaty was signed with the Russians at Nerchinsk, officially giving the Amur River basin back to China, the city was surrounded by a large fleet of heavily armed junks and 17,000 Manchu soldiers. (Ref. 15)

By the end of the century the population had again risen and stood at about 130 million. (Ref. 16) The Chinese did not give a monetary value to gold and would exchange it for silver at exceptionally low rates. Some historians believe that from 1/3 to 1/2 the silver mined in America between 1527 and 1821 found its way to China. Braudel (Ref. 17) states that in 1695 a traveler reported profits of 300% were made taking Chinese mercury to New Spain.

JAPAN

We have noted that as the last century closed the Japanese hero of

the bloody Korean-Japanese conflict, Hideyoshi, died during the peace negotiation. As this 17th century began, Tokugawa Iyasu, of royal blood, fought his rival generals and became the new shogun and brought order out of chaos by establishing a new currency, a money rather than a rice economy, a police network of the unemployed samurai and ruled as tyrant, while still giving young Emperor Go-Yozei some of the taxes. At the emperor's request Tokugawa issued an edict ordering the deportation of foreign priests, the demolition of churches and the renunciation of faith by Christians "who seek to change the government and obtain possession of the land". Still, in the first decade of the century Japan was a profitable rendezvous for Portuguese traders. Every year the Macao carrack brought about 200 merchants to Nagasaki, where they would stay for 7 or 8 months, spending money freely. (Ref. 18) When Tokugawa sought to evacuate the Portuguese and Spanish friars, he was influenced by Will Adams, an English pilot of a Dutch ship, whom the shogun had kept as a prisoner but finally had him build 2 European ships. For this Adams was made a samurai and given an estate. Although against Portuguese and Spanish aggression, Tokugawa was not against all Christians and did not want to stop profitable trade with Protestants from Holland and England. But after his death in 1616³, Catholic Christians were further persecuted and between 1620 and 1635 some 6,000 were crucified, some of them upside down like St. Peter. By that time 1 out of every 50 Japanese had been converted to Christianity and there were some Christian clan lords with armed infantry. The Emperor G-Mizu-no-o felt that his shogun was not doing his job of expelling those Christians, so he abdicated in 1629, putting a 7 year old girl on the throne, the first empress since 769. That was a sign to all that the Tokugawas were infringing on the imperial power and were fit to manage no one but little girls. Soon the shogun went to Kyoto to parley, with a great show of pomp and power, taking 307,000 retainers. After the meeting the shogun clamped down on all foreigners and closed the country except for a small Dutch trading post on a tiny island in Nagasaki harbor. Every time a Dutch or Chinese vessel did arrive there "on permission" a kind of fair was held and in the exchange Japan could export its silver and copper. Thus Japan still had some impact on world economy. It was the merchants of Osaka who were in charge of the internal trade. Japan would not be open again for 211 years. (Ref. 19, 20)

In 1657 fire destroyed most of Edo and killed more than 100,000 Japanese. (Ref. 22) The shoguns of the late part of the century were on the whole only mediocre. The so-called Genroku Age of letters and art developed between 1688 and 1703. During this time of isolation from the rest of the world, Japan kept her population stable by various devices, chiefly infanticide. Although rice had been grown some since the 1st century of the Christian Era, it was only in this century that it began to play a large part in the Japanese diet. Yedo (also Edo and later to become Tokyo) began to be the largest city, with over 500,000 citizens plus an enormous garrison of soldiers, with their families. The old capital of Kyoto sunk to second place. Merchant dynasties became established and some such as the Mitsui family have survived until today. They were sake manufacturers in 1620 and became the financial agent of both the shogun and of the imperial household in 1690. (Ref. 23, 24)

KOREA

Following the great war with Japan, in which the Koreans defeated the invading Japanese by cutting their supply lines at sea, Injo was put on the throne by the so-called "southern faction" of Confucianists. In 1637, however, the Manchus overran Korea and within 10 years it was simply a vassal state of the Manchu Ch'ing Dynasty and, isolated from the non-Chinese world, became known as "The Hermit Kingdom". The court and the people remained loyal to the Ming and in the last quarter of the century the western faction of Confucianists returned to power, under Sukchong.

SOUTHEAST ASIA

Under the Ming Dynasty of China there was a kind of colonial capitalism among the emigrant Chinese to the East Indies. This has persisted to the present day, with Chinese merchants and bankers among the most prominent of the entire Southeast Asia region. (Ref. 25)

MAINLAND SOUTHEAST ASIA

After 1644 much of Indo-China and all of Annam became part of the Manchu Chinese Empire. Towns in Vietnam were little

populated on ordinary days as the people were in the fields, but twice a month great markets were held. At Hanoi (then Ke-Cho) the merchants were grouped on different streets according to their specialties. In effect it was a fair or market rather than a town. (Ref. 26) In 1659 Vietnamese armies penetrated Cambodian territory and in 1697 LanXang split into three rival states and wrangled among themselves for 2 centuries, while fighting off outside invaders at the same time. Burma had broken up into a number of small states at the beginning of the century. Japanese, Portuguese and English traders were all active in Siam, along with the ever present Dutch. The European powers also traded in Burma and Malaysia early in the century. When the Dutch attempted to monopolize Siam's foreign trade, King Narai (1661-88) and his Greek adviser, Constant Phaulkon, invoked French aid and the resulting French garrisons at Bangkok and Mergui led both to a change of dynasty at Ayurthaya and complete expulsion of the French, with heavy losses. (Ref. 27, 28)

After the Dutch seized Amaboyna and established themselves at Batavia, the English withdrew from Malaysia, as the Dutch had also captured Malacca from the Portuguese. The latter had introduced pineapples, papaya and sweet potatoes to southeast Asia from America. With Chinese-influenced Vietnam as an exception, houses in southeast Asia were built on piles and made of wood and bamboo, with wood and mud lattices. (Ref. 29, 30)

INDONESIA AND ADJACENT ISLANDS

In the course of this century the Dutch East India Company, by both force and diplomacy, got control of the sources of almost all the valuable spices coming from this part of the world and thus established a virtual monopoly on their shipment to Europe.

Besides their headquarters at Batavia and Malacca, they had a large establishment at Goa to service the Indies' activities. (Ref. 31) Sumatrans, as other far easterners, were basically grain eaters. Only a great lord might have chicken and they could not understand the Westerners love of cattle and poultry. Spanish galleons linked America with Manila, where Chinese junks hurried to trade. Mexican silver in the amount of about a million pesos a year thus went to the Orient. (Ref. 32) Timor, out at the eastern end of the lower island chain, was held by the Dutch East India Company because of its sandalwood, which could be used as an exchange

currency in China. (Ref. 33)

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1. Quotation from page 104, Braudel (Ref. 3) But also see next page re: protein deficiencies
2. The Europeans called him "Kalinga". (Ref. 12)
3. Tokugawa's heirs ran the administration of Japan for the hidden emperors for the next 252 years. (Ref. 21)

The Far East: A.D. 1701 to 1800

THE FAR EAST

CHINA AND MANCHURIA

The K' and Hsi reign of Sheng Tsu of the Ch'ing or Manchu Dynasty continued until 1722 as a period of great cultural achievement. Then there was a short reign of Shih Tsung in the Yung Cheng period, which included inconclusive wars against Mongols and western tribesmen. Finally in 1736 Kao Tsung became the Ch'ien Lung Emperor to reign for almost the rest of the century. He was an able and learned man, but he kept the western world away from China by repulsing English attempts at increasing international trade. (Ref. 1) Imperial domination of that type had controlled the economy and general course of industry for many generations and the end result of- that could be seen by 1736 when the once busy blast furnaces, coke ovens and steel plants were abandoned entirely. These basic industries, which later led to the Industrial Revolution in Europe, came to a dead end in China as a direct result of the absence of a free market economy. Officials habitually distrusted successful entrepreneurs and a going enterprise was either taken over as a state monopoly or was subjected to such taxes and artificially imposed prices that continued successful operation was impossible. One exception to this situation appears in the Co-Hong, a group of merchants authorized by the Peking government in 1726 to set up in competition with the Europeans, particularly the Indies Company. Lasting until 1771, the Co-Hong was the source of some huge Chinese fortunes. (Ref. 2)

Jesuit missionaries had been active in China for a long period and in order to get better rapport with the people, they had compromised with some Chinese customs and beliefs. This upset the pope and he banned the Jesuit activity in China and eventually

disbanded the whole order. But the pope's action infuriated the Chinese emperor and he promptly banned all missionary activities, although Priests were allowed to stay in Peking as astronomers, calendar makers and engineers. Increasing isolation behind monastic walls caused Chinese Buddhism to fade gradually in importance and Confucianism dominated. European intellectuals marveled at a great, prosperous and powerful country without benefit of clergy or hereditary aristocracy. This was one of China's great ages, with striking growth of agriculture, trade and population as well as massive scholarly and artistic efforts. Blue and white porcelain with transparent enamels went to every European city. In 1793 Kin-te-chin had 3,000 furnaces for baking porcelain. Su-Ch'u had between 3,000 and 4,000 silk-loom. It is hard to believe in the light of these accomplishments that both soap and underwear were still unknown in China. Horses were rare and Chinese were still using wooden saddles and ropes instead of reins. Furthermore, much of their equipment was primitive. Although there were textile looms in the towns, the countryside weavers used elementary horizontal looms of a type still used today by certain nomads in North Africa. Was this lack of good mechanization because labor was so plentiful and cheap? (Ref. 3, 4, 5)

The population increased from 130,000,000 to 150,000,000 in A.D. 1700 to 313,000,000 by 1794. (Ref. 6) Maize joined the traditional northern crops of millet and sorghum and allowed the restoration of a demographic balance between northern and southern China. As in western Europe, Chinese merchants now had their shops in one place, their houses in another. (Ref. 7) Merchant and artisan guilds greatly expanded in number and function, with security funds, insurance plans and entertainment programs. Dictionaries and encyclopedias were published. The Ch'ien-lung Emperor was probably the most capable ruler of his time, but his reign was blemished by two things: (1) a literary inquisition in the 1770s to suppress what he thought to be subversive ideas and (2) in his older age he became the dupe of a clever guardsman named Hoshen, who introduced extensive bribery and corruption in the administration. (Ref. 8)

As East-West contacts became less and less, soon all foreign commerce had to come through the port of Canton (or at Kyakhta for the Russians). The extensive exports of tea, silk and porcelain were under government license at those ports, with silver the

standard medium of exchange until very late in the century when foreign powers began to bring in opium instead of silver. By the end of the century everyone in China smoked tobacco, even children. (Ref. 9)

Chinese armies roamed westward over Central Asia and by the Treaty of Kiakhta in 1727 Russia was forced to acknowledge Chinese jurisdiction over that region, the last strongholds of nomadic power. In the meantime, however, the huge Kamchatka Peninsula to the north had been taken by Russia along with the Kurile Islands. (Ref. 10) Old tribal rebellion problems also gave intermittent difficulties throughout the century. There were a number of such uprisings in Yunnan (1726-29), of the Miao of Kweichow (1795-97), of the Yao in Kwangsi in 1790 and of the Chinese Muslims of Kansu in 1781-84 and the most serious of all - the great Chin-ch'uan tribal rebellions of western Szechwan, which simmered from 1746 through 1776. Taiwan had an uprising in 1787, but it was not a major threat to the Ch'ing Dynasty. At the end of the century, however, as indicated above, the government was declining with corruption in the administration and demoralization in the army. (Ref. 11) The tremendous population increase and the limited amount of land for increasing agricultural production combined to produce some serious hardships and impoverishment of the people. This was in part the reason for the White Lotus rebellion in Szechwan, Shensi and Hupeh in 1795, which continued into the next century. (Ref. 12)

One must not overlook the extensive, internal water traffic that was and is so essential for the Chinese life. A witness in 1733 described a perpetual movement of boats, barks and rafts (some 3 miles long) containing permanent homes with wives and children aboard. One could almost believe there were as many people living on water as in the towns and of the world's greatest maritime trades, linking up the small-craft from the interior with the Chinese junks and European three-masters. The ordinary rate of interest between merchants of Canton at the end of this century was 18 to 20%. (Ref. 13)

It was not until this century, long after Vesalius had done human body dissection in Europe, that direct anatomical studies were done in China, since Confucius' doctrines had forbidden violation of the body. (Ref. 14) Because of government pressure, by 1800 maize and sweet potatoes, transplanted from America, made up a substantial

part of China's total food and were staples of the poor. (Ref. 15)

JAPAN

The feudal age of the Shogunates continued throughout this era and we pause here to briefly outline more of the nature of this political organization. Theoretically at the head of the nation was the divine emperor, and the apparent ruling house, the hereditary Shogunate, allowed the emperor and his court a certain monetary allowance each year, while the Shogun himself luxuriated in the growing wealth of Japan. The Shogun had a large personal retinue and was advised by a cabinet of 12 members. A Board of Censors supervised all administrative offices and kept watch on the feudal lords (Daimye). The latter formally acknowledged allegiance only to the emperor and some of them successfully limited the Shogun's powers. Below the lords were the baronets and then the squires. Serving the lords were a million or more samurai, sword-bearing guardsmen. Every soldier was a gentleman and every gentleman a soldier and they scorned mere learning. They were exempt from taxation, received pay from the baron they served and performed no labor except occasionally to die in battle. The samurai could keep his sword sharp by splitting a peasant here and there at will. With them the practice of Hari-Kari developed, as the code of the samurai demanded great courage, asceticism and self-control. With decrease of warfare, however, the purely military character of the caste changed and while the samurai remained a pensioned and privileged aristocracy, they then began to perform administrative and judicial functions. Eventually powerful economic political and intellectual forces began to undermine the delicately poised political system of the Shoguns. The dominant samurai class became economically dependent upon the despised merchants and moneylenders. Some samurai manned the learned professions of medicine, teaching and scholarship. But both lords and peasants suffered from the radical fluctuation in agricultural prices entailed by the penetration of a money economy into the countryside. The samurai with the government tried debasement of the currency, price controls, moral exhortations and outright confiscation of merchant fortunes, all of no permanent help. Some lords had to promote new agriculture and mines and industrial enterprises, including a boost in silk output, while others adopted sons of

merchants, thus improving the family finances and securing for the merchants the prestige of samurai rank. Through this, class distinctions began to lose part of their sharpness. Osaka, with 500,000 people by 1783, was the meeting place of Japanese merchants and the capital Yedo (Tokyo) was already twice as large as Paris. (Ref. 16) Powerful craft guilds, officially recognized as early as 1721, extended their networks and monopolies and in some instances began to resemble western, privileged trading companies. (Ref. 17)

During this relatively peaceful century Japan's population remained stable at about 30,000,000, kept down by widespread infanticide and occasional famine. An excess of rain and grasshoppers in 1732 reduced 2,600,000 people to near starvation while 12,400 people and still more horses and cattle died. (Ref. 18) But rice production increased as a result of improvement in seeds, irrigation and drainage systems, tools and commercialization of fertilizers made from sardines, colza, soya or cotton cake. In contrast to Europe, changes of fashion in dress did not occur in Japan and it is said that the nation had not changed its costume for over a thousand years. (Ref. 19)

In the intellectual and philosophical realms, it should be mentioned that Japanese scholars completed some 58 years of work in 1715 in the 26 volumes called Dai Nihonshi (The Great History of Japan), but it was in manuscript form and kept out of print, so that only the aristocratic few had access to it. The Buddhist monks became quite degenerate and their religion lost its hold upon the nation, as the Shoguns went over to Confucianism. The civilization of the old Japan, like so many others, had begun with religion and was ending with philosophy. The retreat of Buddhism behind monastic walls was a defensive reaction to foreign cultural and political pressures. The Neo-Confucians sought to inculcate loyalty and obedience in all ranks, but some rejected this Sinification and sought new solutions. In 1779 the main line of the imperial family ended without male issue and a collateral house, the Kanins, took over and they were the one chiefly responsible for the revival of Shinto. The remodeled Shinto seems to have ideas borrowed from ecclesiastical and other notions of Christianity. It attempted to draw men's minds away from the Shogun and back to the emperor. In another direction, a handful of men began to penetrate the secrets of western civilization - chiefly through the Dutch language and

books, with then some Japanese publications appearing on medicine, anatomy, astronomy and geography. (Ref. [20](#), [21](#))

KOREA

Korea was a vassal of the Manchu Dynasty of China and political activity was at low ebb, while intellectual activity was intensive. For the most part, however, this activity was limited to considerations of moral philosophy and to genealogical research. In 1706 the Hyeonchungsa Shrine was erected near Asan in memory of the famous **Admiral Yi** on whom the government had already bestowed the title "Chungmu-Kong", meaning "Loyalty-Chivalry Lord". (Ref. [22](#))

SOUTHEAST ASIA

MAINLAND SOUTHEAST ASIA

Buddhism had become the palladium of both Burmese and Siamese ethnic identities, so that the fate of the religion was intertwined with the fate of those two nations. In Burma the Mons rebelled in 1740, setting up their own kingdom at Pegu and then returning to capture the Burmese capital, Ava, in 1752. But a new Burmese leader, Alaungpaya, continued the fight and finally defeated the Mons with their French allies, founding Rangoon in 1755 and reuniting Burma. In 1759 the same king defeated the British East India Company on the island of Negrais and the British left Burma. But the nation's problems were not over. Between 1760 and 1769 the Chinese made four abortive invasion attempts and finally succeeded in making Burma a vassal state in 1771. The Burmese also warred some in late century with Siam, in an attempt to expand their territory. (Ref. [23](#)) Siam continued to be a large country and extended down the Malay peninsula almost to Penang.

It was in 1767 that the Siamese capital at Ayudhya was ransacked by the Burmese, with buildings and art work destroyed and the royal family members killed or taken captive. When the Burmese were driven out in 1782 a new dynasty, the Chakkri (or Chakri), was established and it has continued in power to this day. (Ref. [24](#)) The first of that dynasty, King Rama I, built Wat Phra Keo, a fantastic Theravada Buddhist temple in 1785. (Ref. [25](#), [26](#))

The area now known as Laos was comprised chiefly in the 18th century by the Kingdom of Lung Prabang, although as early as 1707 the southern part broke away to be part of Vientiane. Annam (Vietnam) got further territory, including the area of Saigon, from Cambodia, but after 1775 the Vietnamese suffered internal problems, allowing the Thais (Siamese) to also invade Cambodia. (Ref. 27, 28) Annam became a vassal state to China in 1788. On the Malay Peninsula, the British East India Company acquired Penang from the Sultan of Kedah for a naval station in 1786 and at the end of the century the British were beginning to move against the Dutch in the entire area. (Ref. 29)

INDONESIA AND ADJACENT ISLANDS

Malaria arrived late in Indonesia, but practically destroyed Batavia (now Djakarta) in 1732. (Ref. 30) The Dutch introduced coffee cultivation all along the north coast and the east end of Java, as well as in the Medura Islands, as they extended their political control. Indonesians were required to work in spice groves by local princelings who, in turn, were commanded by Dutch overseers. (Ref. 31) Later the English took Sumatra to hold for the Dutch and by the Treaty of Paris of 1783; they returned all colonies to the latter. But the aggressive English again conquered Sumatra in 1795 and by 1798 the Dutch East India Company was out of business. The British also temporarily occupied Manila in the Philippines between 1762 and 1764 and during that time opened that city to world commerce. When the Spanish regained control, however, they again closed the islands to international trade, although they exchanged American silver for Chinese silk there. (Ref. 32, 33)

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The Far East: A.D. 1801 to 1900

THE FAR EAST

Asians decided that polished white rice (like the white flour in the west) was ideal food, but polishing rice removed the drab-colored, outer sheath, which contains the nutritious germ carrying important foodstuffs. Some people were developing the deficiency diseases such as Beri-beri, which affects nerves, heart and digestive systems. (See also **Southeast Asia**.)

CHINA AND MANCHURIA (*Continued Manchu Dynasty*)

The Manchu rulers clung tenaciously to their 2,000 year old institutions but 2 types of pressures hastened the collapse of imperial China. The first was the increasing power and ambitions of the West. English, Dutch, Spanish, French and Portuguese all had colonial empires in Asia as well as America and were calling for free-trade. By 1800 and after, westerners found they could sell the Chinese abundant quantities of opium, even if illegally and get tea, silk, porcelains and silver back. By 1839 this had provoked war with England - the Opium War of 1839-42 - chiefly coastal skirmishes, which went badly for China, nevertheless. Five ports from Canton to Shanghai were opened to foreign residence and trade and foreign influence began to be felt. China's fate in the 19th century echoed that of India in the 18th in regard to creeping western invasion. (Ref. 1)

The second factor leading to the collapse of imperial China was the growing domestic discontent. For 2,000 years China had sustained a highly advanced culture, although static. Regardless of various foreign invader-rulers, the huge majority of its people lived on the land in self sufficient and contained villages, living by

ancestral precept. Although at the mercy of nature, in some ways their technology was well advanced with city walls, efficient irrigation systems and grand palaces and they lived-with dignity, rich and poor. (Ref. 2) In the first part of this 19th century travelers reported that the Chinese "have tranquility without happiness, industry without improvement, stability without strength and public order without public morality"¹. This was soon to change again. Anti-Manchu secret societies became more active, with the White Lotus Society rebellion, which had actually started in 1793, now really disrupting north China by 1804. More and more uprisings continued until 1850, when the great Taiping Rebellion raged for 15 years, with hundreds of towns damaged or destroyed and some 30,000,000 lives lost. This Taiping (also T'ai-p'ing) started in Chin-t'ien in the far south of China in Kwangsi, with a minority group of half-Christianized peasants under a self-styled Chinese Messiah, Hung Hsiu-ch'uan, who set out to create an utopia of pastoral, puritanical communism in central China. They moved to Nanking and soon had a large area from that city south, including most of Hepeh, Chekiang, Kiangse and part of Fukien under control. In spite of their original ideal they were soon just killing people and before it was suppressed in 1864 it had cost 5 to 10 million lives, statistically the greatest war until World War 1. Their advances included one almost to Peking in 1853-54 and on into Szechwan in 1856-63.

The population of China by 1850 was over 400,000,000² and was beginning again to surpass food production. Corruption and indolence in government made things worse and unemployment increased. In addition there were Muslim uprisings which depopulated large areas in Yunnan between 1855 and 1873 and an area just south of the Great Wall in 1863 to 1873, Miao tribal uprisings in Kweichow between 1854 and 1873 and Nien rebels, who invaded Chihli in 1868 and the Hakka-Cantonese War in Kwantung between 1855 and 1857. (Ref. 4, 5, 6)

Thus began China's modern history. In the last half of the century Manchu and true Chinese leaders tried to respond to economic and military incursions of the West with the so-called self strengthening movement, to adapt western technology without disturbing traditional political and social orders. From 1870 to near the end of the century it seemed to be working fairly well, but this was misleading and the imperial order completely fell a few years later.

(Ref. 7)

To leave the political scene for a bit, we should reiterate that by the 1820s Manchu China was the world's largest and most populous empire, directly controlling vast territories in inner Asia and drawing tribute from still larger areas including Korea, Indo-China, Siam, Burma and Nepal. A postal service with 2,000 express stations, over 30,000 horses and almost 50,000 foot messengers and 70,000 service people was used basically as a means of control by the imperial government. In 1855 troops were sent across the Salween River into Yunnan province to suppress some rebels in an area where bubonic plague was endemic. The troops not only contracted the disease but brought it back into the remainder of China and by 1894 it had reached Canton and Hong Kong. It was then that teams of scientists were sent in and the bacillus *Pasteurella pestis* identified and the mode of transmission, by fleas from rodents to men, was established. In the meantime steamships were carrying the disease from China around the world. Chinese medicine continued to fascinate the West. The Pharmacopoeia, called Pen Ts'ao, listed many wines. Tortoise wine was good for bronchitis; snake wine was curative of palsy; dog wine helped lassitude and mutton wine was good for the testicles. (Ref. 8, 9, 10, 11)

We must include a few words about Chinese paintings. Japanese collectors have given the impression that Sung paintings are great, Yuan occasionally good, and Ming and Ch'ing increasingly imitative and sterile. This not what the Chinese themselves think, but their traditions are not those of the West. Their paintings of ten have no background at all and they feel no compulsion to fill up the canvas with details. Similarly they do not handicap themselves with convention about perspective. In landscapes particularly, the viewer might consider himself as if suspended in air, shifting about to view different parts of the scene. (Ref. 12)

In 1894 Japan defeated China in a year of war and incidentally then took control of Formosa, along with a cash indemnity. After that defeat a generation of revolutionary Chinese leaders, of whom Sun-Yat-Sen (d. 1925) was the most imminent, undertook an almost panic search for new talismans of power and national salvation. The obvious models were the great western powers, so in 1898 the young Emperor Huang Hsu issued a series of astonishing decrees which, if they could have been accepted and enforced, would have advanced China vigorously and yet peaceably on the road to

westernization. But the Dowager Empress, shocked by what seemed to her the radicalism of those edicts, imprisoned Huang Hsu, annulled his decrees and made herself the government of China, with a reaction against all western ideas. She deftly turned an organization known - historically as the "Boxers", originally formed by rebels against her own dynasty, into a furious movement against foreign invaders. This resulted in a killing of Christians, which in turn caused retaliation by armies of the west, including some from the United States. Those armies moved in on Peking and slaughtered the inhabitants in 1900. As in India, it is little wonder that Christianity has had very little success in China. At the beginning of the 19th century a real Protestant missionary effort had been made by English and American churches, but it has been estimated that there were never more than 1,000,000 converts and few of those were 100% converted. In this 19th century perhaps 12,000,000 Chinese migrated into Southeast Asia and along the Indian coast. (Ref. [13](#), [14](#), [15](#))

Manchuria remained somewhat isolated, kept as the special preserve of the Manchu emperors. It had great agricultural potential but was closed to immigrants. In 1858 and 1860 Russia took back 380,000 square miles of Manchuria from a rather helpless China, claiming that the original Treaty of Nerchinsk (see page 906) had been signed under duress. That area, as well as Korea, then remained under Russian influence until after the war with Japan was concluded early in the next century. (Ref. [16](#), [17](#), [18](#))

JAPAN

Japan exhibited a marked duality under the Tokugawa Shoguns, a separation between political and economic power; moral ideal of Spartan warriors versus sensuous indulgences of the "Floating World". Then in 1850 there was conflict among rival cliques over the succession to a childless ruler and that set the stage so that the rather modest emergency of Perry's "black ships" triggered far-ranging, deep-going transformations of Japanese society. The Age of Military Feudalism of Japan may be said to have terminated at that time when Commodore Matthew Perry arrived in Uraga Bay in 1853 with 2 warships and 2 side-wheelers. The American got nowhere with negotiations at that time, but he returned 8 months later in 1854 with 9 ships, 3 under steam, along with a miniature

steam train, which he set up on shore for demonstration. The subsequent dedication of the Japanese to trains may have started with that. Treaties allowing western access to 2 ports, with resident western consular officials followed. But this was still not the end of turmoil in Japan regarding East-West intercourse. The emperor refused to sign the treaties and political war against the Tokugawas was instituted and Iemochi became shogun. In 1862, at Emperor Komei's order, Lord Shimazu of Satsuma went to - Kyoto, killed a few enemies and, with Prince Ashiko, temporarily got rid of the emperor's chief advisor, Iwakura of the clan of Choshu.

The aims of modern Japan were set at that time. Although the imperial family had always had a goal of expansion to eventually conquer the world, the group who wanted to first start north against Russia were represented by Iwakura and his clan and they were now out of favor. The apostles of the strike south concept, moving against the West through Singapore and Manila, were in the ascendancy and along with that the policy of exclusion of foreigners from the sacred soil was continued. In 1865, as Japan was preparing for civil war between the Shogun Tokugawa and the Lord of Choshu, the Perry treaty remained unfulfilled and the nation came to a standstill. It was not until the old emperor was assassinated in 1868 and the new Emperor Meiji took over that the troops of the Tokugawa Shogun were defeated and a new era of reform, including some breakdown of class distinction, transfer of the capital to Edo (now Tokyo) and the restrictions against westerners were temporarily lifted. The theory was that Japan must grow strong, expand overseas to establish a defense perimeter outside the sacred soil and only then expel the barbarians. Iwakura, back in power as an adviser, went overseas for 2 years to see what Japan had to contend with in the rest of the world, while the homeland began to industrialize. An anachronism is that even in this 19th century sugar cane was still milled by manpower, in Japan. (Ref. 19) Returning from abroad, Iwakura gradually forced Korea to open her ports to Japanese commerce by gun-boat diplomacy and at the same time, by getting hoarded gold from wealthy merchants, he stabilized Japan's economy and established public confidence in his currency and bonds. In a sense Japan became westernized by fiat. Militarism was reinforced, conscription was adopted late in the 1870s after a brief but brutal civil war and the army was organized on the Prussian model. (Ref. 20) Japanese merchants became the

shipping magnates, the money lenders the financiers and the cities of Tokyo, Osaka, Hiroshima, Nagasaki and Kokura became great industrial centers. When the strong man Iwakura Tomoni died, Emperor Meiji himself, although remaining in the background, carefully continued the industrialization. His sons were educated in Europe at Sandhurst and St. Cyril, the Polytechnique, etc. learning the military physics and western arts of war. Saionji Kinmochi, a prince of the Fujiwara family had gone abroad to study also in 1871 and remained in Paris 9 years. On his return home, he helped draft a constitution based primarily on Bismarck's for Germany, although he retained all-encompassing power for the emperor. It was presented to the people in 1889; (Ref. [21](#), [22](#), [23](#), [24](#))

The population of Japan in 1888 was 39,500,000 and the proportion living in cities of over 100,000 was small. This population was to double in the next 30 years, even though the Japanese islands are smaller than California, with only about 1/6 of the land arable. The Sino-Japanese War, beginning in 1894, had developed over the control of Korea and Taiwan and was simply a part of the long range plan of conquering both China and Russia. It started Japan on its course as a great power. Using their adequate coal deposits and their long standing copper industry, Japan launched heavy industry on a large scale after 1895. The ultimate result of all these political and commercial changes was a decline of the shoguns and a regaining of supreme powers by the emperors in a more overt manner. The Shinto religion was revised, the emperor was considered divine by lineage and wisdom and the country underwent an amazingly rapid transformation into a modern nation. There was improved agriculture as well industrialization and an improved silk worm culture allowed independence from the Chinese silk producers. Japanese settlers migrated throughout their empire, including the newly won Taiwan, obtained in the Treaty of Shimonoseki (1895). Universal military service had been introduced in 1872 and the Gregorian calendar had been adopted in 1873. (Ref. [25](#), [26](#), [27](#), [28](#))

KOREA

Throughout most of the century Korea remained under suzerainty of the Chinese Manchus, although with their own kings. After systemic persecution of Christians under the regent Tai Wen Kun,

there were several western expeditions attacking Korea, including a French force and an American naval force under Captain Shufeldt. Three ports were opened to Japanese trade in 1876 and in 1882 a treaty with the United States, negotiated by Shufeldt, allowed certain extra-territorial rights and permission to trade. China and Japan then began to dispute rights of control over the peninsula. In 1894, led by a Japanese underworld strongman sent specifically for the purpose, a group of Koreans, the Tonghaks, known to favor closing the country to Japanese trade, started a revolution. When Chinese troops were being mobilized at the call of the Korean government and Czar Nicholas had massed troops on the northern Korean border, Japanese troops suddenly arrived by sea and occupied Seoul and other Korean cities. The Chinese navy, attempting to prevent reinforcements of the invaders, was sunk by the Japanese navy. The non-entity, who was the emperor of Korea, ran to Russia. China sued for peace, giving Japan the right to "protect" Korea, an indemnity and the island of Taiwan. But Russian influence was still dominant and a Russian-Korean Bank was formed, while timber and mining concessions were given to Russia. On June 9, 1896 Japan and Russia established the Labanov-Yamagata Agreement under which the two countries cooperated in the reform of the army and finances of Korea, but Russian penetration continued, setting the stage for the Russian-Japanese War in the next century. (Ref. [29](#), [30](#), [31](#), [32](#))

SOUTHEAST ASIA

MAINLAND SOUTHEAST ASIA

BURMA

Burma, having failed to invade Siam in the last century, now turned its expansion policy toward the west, threatening Bengal, seizing Manipur and Assam in 1822. This soon brought King Bagyidaw up against the British East India Company and in the next 62 years there were three Burmese Wars with the British. The latter won the first war of 1824-26 and annexed Assam, Arakan and Tenasserim to British India. After the 2nd war in 1852 the British occupied the Irrawaddy delta region and stimulated great rice production there, as well as opening up the great teak forests. After the 3rd war in 1886 Upper Burma was added to the British domain, although

guerrilla activity continued for years, with 32,000 British troops still involved between 1886 and 1891. The Shan states were not subdued until 1887 and the Chin Hills not until 1891. (Ref. [33](#), [34](#), [35](#))

THAILAND: SIAM AND CAMBODIA

After the long conflict with Burma had ended, Siam secured part of Cambodia through division of that state with Annam and finally, in 1844, the whole of Cambodia passed under the protection of Siam's King Mongkut. Rama IV (1851-1868), ruler and monk, philosopher and scientist, who taught himself English and Latin, made a study of western governments and began the work of modernizing Siam. After new treaties were drawn up with Great Britain in 1855, consuls were established and trade agreements initiated. In 1863 the French established a protectorate over Cambodia and Siam gave up its claims to that region. The real founder of modern Siam was Rama V, Chulalongkorn. Under him the old feudal system was abolished, slavery was reduced and there was administrative reform with new taxation and finance methods, better postal service, the telegraph (1883) and the first railway in 1893. But the French had long been trying to extend their dominions westward to the Mekong River and finally, after an acute Anglo-

French crisis and some gunboat activity and blockades, the Siamese yielded and abandoned all claim to territory east of the Mekong. In 1897 the King of Siam paid an extended visit to the European capitals. (Ref. [36](#), [37](#))

VIETNAM: FRENCH INDOCHINA

At the beginning of this 19th century most of present day North and South Vietnam and Laos, at one time all together called French IndoChina, was ruled by the Emperor of Annam and the region was predominantly Chinese in culture, with the empire acknowledging the suzerainty of the Chinese emperor. After a long period of dynastic struggles, the domain had been re-united by Gia Long (1802-1820) and he had been supported by the French missionary, Pigneau de Behaine. The French Catholics had freedom of action until after 1820 when a series of anti-Christian emperors came to power and they were then persecuted for 60 years. Because of that the French, with some Spanish, bombarded Tourane on the coast in 1858 and soon the French occupied Saigon in what was then called

Cochin China. Subsequently the French explored both the Mekong and the Red rivers. About 1873 Francis Garnier, with a handful of men, attacked and took Hanoi and most of the Red River delta. In 1874, by a treaty signed at Saigon, the Annam emperor was forced to give a promise that his foreign policy would coincide with that of France and that he would recognize the French possession of Cochin China in exchange for the return of Hanoi. But the emperor appealed to China for aid and by 1885 France was at war with China. In the end France won control of all Annam and protective power over Cambodia and by 1893 had acquired a protectorate over Laos, which had long been in dispute between Siam and Annam. Paul Doumer, as governor-general over the vast French Indo-China, inaugurated far-reaching reforms which modernized the region, but there was continued resistance to the westerners. The opposition in Annam was led by De Tham from after 1895 until well into the 20th century and there were revolts in Cambodia and Saigon in the 1885-1887 period. (Ref. [38](#), [39](#))

MALAYA

When Holland fell to French revolutionary troops in Europe, the British usurped Malacca and various southeastern Asian islands from the Dutch. Lt. Governor Sir Thomas Stamford Raffles founded Singapore in 1819 and it was soon to become a strategic and commercial center of the region. The Dutch, of course, were unhappy and all was not settled until the Anglo-Dutch Treaty of 1824, drawing a line through the straits of Malacca, with the English holding Singapore and Malacca, but giving up a west Sumatran settlement. There was a steady influx of Chinese laborers into the peninsula after 1850, with some working in the tin mines and some turning to piracy. The British abolished import duties on tin in 1853 and by 1900 Malaya furnished nearly 1/2 the world's supply. The rule of the British East India Company ended in 1867 and thereafter the Malayan Straits settlements had the status of a crown colony. Rubber was first grown there experimentally in 1894. (Ref. [40](#))

INDONESIA AND ADJACENT ISLANDS

The British took Java from the Dutch in 1811, although after the fall of Napoleon in 1815 they restored many of the Dutch possessions, as noted above, retaining chiefly Singapore. It was

during the English occupation in 1814, however, that the governor of Java, Thomas Raffles, learned of the ruins of Borobudur (see pages 501-2,531 and 567) and he initiated some minor cleaning work that was carried on later on a small scale by the Dutch for the remainder of the century. The first real reconstruction work was not carried out until the 20th century. (Ref. 41) In 1825 the Javanese revolted against the Dutch under the native leader, Diponegoro, and it took 5 years for the Dutch to quiet things down. They then extended their control into the interior, forcing a new culture system, which involved government contracts, crop control and fixed prices, all very lucrative to the westerners. Quinchona plantations were established in Java in 1854, giving Europeans the first reliable source of the right kind of bark to supply quinine to protect them in their world-wide expansion. In 1886 the Dutch even sent medical teams to the Indonesian colonies to study Beriberi and they discovered the essence of the vitamin requirements, although the details were not actually clarified until after the turn of the century.

In the 1840s Great Britain again entered this area with a charter for the North Borneo Company which was to have a protectorate over Sarawak, with James Brooke becoming the Rajah of Sarawak. This upset the Dutch, but eventually by a treaty in 1891 the two European countries defined their respective domains in Borneo, with the Dutch retaining the larger part. (Ref. 42, 43, 44)

The Philippines continued under Spanish control through most of the century, with the Spanish having great difficulty subjugating the war-like Moros. Although the growing of tobacco, sugar and hemp had been promoted, Manila was not officially opened to foreign traders until 1834. The Jesuit priests who had been expelled from the island in the last century now returned and gained much power and property. It was in opposition to that clergy that much sentiment arose for independence, with the rebels being led by Emilio Aguinaldo. When the Spanish-American war broke out, the Americans took Manila while Aguinaldo led a new insurrection. At the war's end, to the Philippine leader's great disappointment, the islands gained only American sovereignty, instead of Spanish. He then led still another revolution against the United States in 1899, but this quickly subsided to merely guerrilla warfare, although it cost 7,000 American casualties by the time of its termination in 1902. (Ref. 45)

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1. Quotation from de Tocqueville (Ref. 3), page 90
2. Contrasting to 4,000,000 in the United States at 1800 and 30,000,000 in the whole of Russia

The Near East

Geographical Presentation of The Near East

Although in present media parlance the "Middle East" includes Egypt, we prefer to consider that country as basically a part of Africa and will use the term NEAR EAST to refer to the area shown within the black border on the map below. In spite of its overall small size, we shall divide this geographical region into five subdivisions.

THE ARABIAN PENINSULA

This includes all the present countries of the Arabian Peninsula, including Oman, Yemen, Democratic Yemen, Kuwait and Saudi Arabia, as well as some smaller emirates and nations. Jordan, lying at the base of the peninsula is included also, since its people and land have historically been an intimate part of the desert culture.

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

Present day Lebanon is almost identical geographically with ancient Phoenicia but Israel's borders have varied greatly under differing names throughout the ages. Although Syria has always had a narrow opening on the sea, we prefer to group this country with its eastern neighbor, Iraq. The eastern Mediterranean coast is and always has been Semitic, although Jew and Arab alike seem to want to deny their genetic relationship and the area has been a constant battlefield as well as a crossroads between Asia, Africa and Europe.

IRAQ AND SYRIA

Present Iraq has nearly the same borders as ancient Mesopotamia. Syria has had mobile borders for centuries and we are maintaining this designation for that area wedged between Asia Minor, Iraq and Lebanon. Historically, linguistically, politically and genetically it has always had close association with Iraq.

IRAN: PERSIA

Iran is basically a non-Arabic, non-Semitic country with an Indo-European speaking people. I-historically and religiously, however, it has been a part of the Near East for centuries, at present sharing the majority Moslem religion. Its eastern portion is chiefly desert.

ASIA MINOR: ANATOLIA

The Anatolian peninsula, currently represented chiefly by the country of Turkey, historically has been a land of many different nations and peoples. In the eastern end, the ancient country of Armenia has been now absorbed mainly by the Soviet Union but we are keeping this district of ancient Armenia as a separate entity in this work.



Map 1.1: The Near East (This map was obtained from <http://english.freemap.jp/index.html> and is used with permission under a Creative Commons Attribution 3.0 license.)

The Near East: Beginning to 8000 B.C.

THE NEAR EAST

It has been mentioned earlier in the chapter that before 13,000 B.C. the area now covered by the Mediterranean Sea was in part a land mass with only connected fresh water lakes, fed by the Nile and Adriatic rivers and drainage from the Black Sea area. As the glaciers continued to melt the Atlantic Ocean level rose and spilled over the Gibraltar barrier into the Mediterranean basin. It is possible that a great accumulation of men of the dark-white Iberian race had occupied this lush basin and now had to spread north, south and east. In the Near East, as we know it today, there were people at 20,000 B.C. eating snails, river crabs, fresh water mussels, turtles and various nuts. Cooking by boiling could not be well developed before the use of pottery, as one must have fire proof containers for the water. Some other previous methods may have been used in localized areas and on a small scale, such as the use of a large mollusc or reptile shell, animal stomachs, etc.

The eastern Mediterranean shore has been warm and wet enough for human habitation for at least 20,000 years and remains of the classical Neanderthal man have been found there predating that period, particularly in Israel, Lebanon and Iraq, where typical Mousterian Culture tools have been found in both caves and open sites. At about 10,000 B.C. the Natufians (archaeologist term for a particular group studied in digs) were taking their first steps toward building permanent settlements, storing food and similar basic activities. This Mesolithic culture of about 10,000 to 8,500 B.C. was centered in Palestine, but extended north into Syria and Lebanon and west into Egypt and surrounding Africa. Querns for grinding and sickles were used and the people apparently hunted gazelles.

Agricultural communities appeared where rainfall permitted. [1](#)

[1](#)

The now dry wadis must have gushed with water at that time, although they apparently dried up about 15,000 years ago. (Ref. [1](#))

Upper Paleolithic cultures flourished in caves in Anatolia from 13,000 B.C. onwards and there are cave sites at the southeast corner of the Caspian Sea from 10,500 B.C. on. Seasonal settlements with mudbrick cubicles and plastered floors in the central Zagros Mountains date to the 9th millennium B.C. Tannahill (Ref. [2](#)) says that even back at 40,000 B.C. there was one person for every thirty-one square miles in Iran, and the bones found there are chiefly of wild goats and red deer, although those of hare, fox, leopard and wild cattle have also been found. As the Ice Age ended and the glaciers receded, the seas rose rapidly, particularly where there were wide continental shelves.

The flooding in the Persian Gulf area between seven and ten thousand years ago must have been spectacular, and before the Tigris and Euphrates rivers filled the valley with silt, the sea reached inland over hundreds of miles, undoubtedly giving rise to the flood stories so common in all heritages of the old civilizations of the Near East. Some feel that a sinking of the bed rock under the Mesopotamian plains may have outstripped the opposite effect of silting, and thus contributed to the flooding. (Ref. [3](#), [4](#), [5](#), [6](#), [7](#), [8](#), [9](#), [10](#))

At Eridu, south of Ur, the Iraq government has unearthed ruins of fourteen temples, one above the other, all belonging to the "first Al'Ubaid period", which was before a tremendous flooding of this entire valley occurred, filling the land between the Syrian desert plateau on the west and the Persian mountains on the east, representing some tremendous catastrophe of nature and remembered thereafter in the peoples' legends as "The Flood"- a recurring story throughout Mesopotamian and Near Eastern history. In the excavations of the strata below the flood silt there was pottery, evidence already of far flung trade, and at Ur, Woolly even found two beads made of amazonite, a stone of which the nearest known source is the Nighiri hills of central India' Whether the pre-flood people should properly be called Sumerians is disputed. The

famous Sumerian King lists, found later on various tablets, show legendary kings before the flood and the length of each reign was described from 18,000 years back. Then, say the tablets, the flood came. The lists of kings after the flood again are all legendary down to "The First Dynasty of Ur" which we shall discuss later. The flood plain had eleven feet of silt which has been estimated to mean a flood not less than twenty-five feet deep over the flat, low-lying land of Mesopotamia. Ur, today, is 200 miles from the sea, but only fourteen feet above sea level. (Ref. 11)

Sheep were domesticated in northern Iraq about 9,000 B.C., certainly by 8,900 B.C., but it is possible that they were brought from the east around the Caspian Sea by nomads who had domesticated them even earlier.

1

[315] HAMBLIN, DORA JANE, "Treasures of the Sands", Smithsonian, Sept. 1983, pp. 43-53.

2

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The Near East: 8000 to 5000 B.C.

THE NEAR EAST

The early agriculture of the naturally growing wild wheat and barley in parts of this area allowed the development of communities permanent enough to develop brick and stone for both private and public buildings. The earliest sites were not far from the mountain ranges which had been the original home of the cereals just mentioned and all were within a belt of 300 millimeters (120 inches) rainfall a year, or in a flood plain. Such were Tell es-Sultan at Jericho and Catal Huyuk in central Turkey. The latter covered thirty-two acres with perhaps 6,000 to 10,000 people, with evidence of long distance trade, volcanic glass for tools and blue apatite for ornamentation. This center came to an end about 5,000 B.C., apparently simply abandoned. But the first known pottery and woolen textiles were found there¹. Jericho, in Judea, is thought to be the world's oldest city, dating back 9,000 years ago, some 4,000 years before the first Sumerian city. Sitting beside a spring near the Dead Sea, it had stone walls and a tower thirty feet high and a population of perhaps 2,500, all living 800 feet below sea level, whereas its counter-part Catal Huyuk was at an altitude of more than 3,000 feet. In both it appears that women cultivated the crops and looked after cattle while the men went hunting with their newly domesticated dogs.¹

¹

C. (Ref. ²)

Although not yet at the stage of city building, Sumerians in Mesopotamia are thought to have invented the wheel sometime

between 65500 and 6,300 B.C. (Ref. [3](#)) Wheat and barley were both grown in southern Iraq by 79000 B.C. Excavations at Tell es-Sawwan, seventy miles northwest of Baghdad indicate a high level of civilization there around 6,000 B.C., with buildings built from unbaked, mortared bricks and houses with access through the roofs and coated with plaster, then bitumen and finally facings of gypsum. This site was occupied for 1,000 years and has similarity to Catal Huyuk although occurring much later in time. It fills in a gap between the new Stone Age and recorded history. Thus the so-called "Neolithic Revolution" appears to have taken place between 7,000 and 6,500 B.C. Some instruments instead of being chipped were now highly polished. The first farm animal tamed was probably the goat, which lives off wild grass. Sheep, pigs and finally cattle followed. The pig is not a ruminant and pig-rearing could not occur until nuts, acorns, meat scraps and cooked grain were available. Cattle, domesticated either in Turkey or Macedonia between 6,000 and 5,800 B.C., offered a difficult task as the originals were fiery and agile, but this was a most important step in man's exploitation of the animal world. They were brought under control by poor feeding, close penning, hobbling and castration of the bulls. The barn yard animal became man's first power tool, but cattle were not used in any other area of the world in this millenium time-frame. Even in this Near East region desert still predominated and man and animals were actually crowded in oases. Eridu was an agricultural settlement of 5,000 B.C. (Ref. [4](#), [5](#), [6](#), [7](#))

Woolen garments were woven and there is evidence of early trade in obsidian which was ideal for tools. This came from the area of Lake Van and was exported to Mesopotamia as early as 7,000 B.C. Baskets and wooden as well as stone vessels had been invented before the 6th millennium. At Hacilar in Asia Minor, beginning about 5,500 B.C. there is evidence of a Chalcolithic Culture which involves the use of pure copper along with stone. Elam, in southern Iran was settled by the 8th millennium and in the middle of the 6th Iran had farming villages with irrigation agriculture, supplemented by hunting. Animal paintings and imported copper tools have been found.

As we have noted in the last chapter, the Black Sea, up to this time, had been a freshwater lake, connected in turn to the Caspian-Aral system. Now, as the ice cap melted and the sea level rose, salt

water in the Mediterranean eventually went over the Bosporan shelf into the Black Sea, killing the fresh-water life it contained. The decomposed remains of this ice-age population still poisons the lower levels of the stagnant Black Sea, which is still devoid of life below 250 feet. (Ref. [8](#), [9](#), [10](#), [11](#),[12](#), [13](#), [14](#))

[1](#)

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

[2](#)

[315] HAMBLIN, DORA JANE, "Treasures of the Sands", Smithsonian, Sept. 1983, pp. 43-53.

[3](#)

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1. Hugh Thomas (Ref. 1) says that the world's first pottery was a monochrome type made in Iraq about 7,000 B.C. with painted pottery appearing about 6,500 B.C.

The Near East: 5000 to 3000 B.C.

ARABIAN PENINSULA

This was the fount and breeding place of the Semitic peoples, although at this particular time only Bedouins and nomad tribesmen existed and there was no true civilization, at least in the western two-thirds of the peninsula. Recent excavations on the Island of Bahrain and adjacent Saudi Arabia have suggested the presence of a vanished empire which the Sumerians referred to as "Dilmun", center of earthly paradise. Excavated objects indicate commercial activity oriented both towards India and Mesopotamia. Surface shards and implements have been dated back to about 4,000 B.C. (Ref. 1) Apparently after the Wet Phase, about 4,000 B.C. there was a progressive dessication of the Arabian peninsula which may have contributed to the northward migrations of peoples into the Syrian Desert which began shortly thereafter. (Ref. 2)¹

1

C. and their use was extended to Egypt even before the first dynasty, that is, before 3100 B.C. (Ref. 3) Another recent writer, Hamblin (Ref. 4), however, although agreeing that domestication occurred among the southern Arabian tribes, would put the date much later, at 2500 B.C.

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

The people of the coast in these early millennia may have been of the original Mediterranean race now represented in this part of the world only by the Georgian Caucasians. Timnal, in southern Israel, was a source of large amounts of surface ores of malachite, so there

was a Chalcolithic Palestinian civilization called the Ghassulian Culture, using the first deliberate alloy, arsenical copper. (Ref. 5) The original locations of coastal towns, and later major cities, was occasioned to great extent by the location of springs and thus there has of ten resulted continuous occupation of the same spots over many centuries, with the consequent rise of debris mounds, or tells (Ref. 6).²

2

C., Jemmeh in the northwestern Negev desert was occupied by a small group of Chalcolithic hunting and farming people, but subsequently it was apparently abandoned for some 1,300 to 1,400 years. (Ref. 7)

IRAQ AND SYRIA

Iraq is the area of the ancient Mesopotamia, a word derived from mesos meaning "between" and potamos or "river". The wheel and the plow are thought by most to have been invented or brought here sometime about 3,500 B.C.¹. Cattle were used as beasts of burden about the same time. There is evidence of irrigation on a steppe east of Mesopotamia by 5,000 B.C., and classically historians have described three more or less separate civilizations which developed in the river basins of Mesopotamia perhaps as early as 4,500 B.C. The most important of these will be discussed first:

SUMER (On the Euphrates River) All historians seem agreed that the Sumerians were non-Semitic, but their origin is much disputed. Some have suggested Iberian or Dravidian affinities. McEvedy (Ref. 8) thinks they may have been part of the aboriginal Caucasian people and to this is added the opinion of Sir Leonard Woolley (Ref. 9) that their language was that of the early Caucasians. They used copper from 5,000 B.C. onward and their clay tablets give us records back to 3,300 B.C. in the city of Ur, which was then a seaport. The geography of Mesopotamia has changed greatly through the millennia. In addition to the Tigris and Euphrates, the Karun River from the Persian mountains and Wadi al Batin, draining the heart of Arabia, all enter the Persian Gulf, the latter two at almost right angles to the former two. Many millennia ago, the last two rivers discharged a mass of silt across the gulf, which

then extended even north of present day Baghdad, and eventually made a bar against which similar silt of the two chief rivers piled up, forming dry land directly across the gulf. The effect was to turn the upper end of the then existing gulf into a stagnant lake which was still fed by the waters of the Tigris and Euphrates, but which then turned from salty to brackish and then to actual fresh water. Eventually, of course, even the lake built up with silt, making the area the most fertile land on earth. Although Ur, then on the sea coast, became the great capital of Sumer, the city of Eridu, south of this, seems older and in a nearby village of al'Ubaid there has been found ancient pottery, in some ways similar to pottery also found at Susa, in ancient Elam and which might have a common ancestry from some foreign place. Could the origin be Bahrain, the island down the gulf where Danish excavations now show a civilization possibly older than Sumer? There is a Sumerian legend which tells how a race of monsters, half fish and half human, came from the Persian Gulf, led by Oannes, and introduced the arts of writing, agriculture and metallurgy.

The Sumerians had wheeled vehicles¹, wheel-made pottery, sailboats and animal-drawn plows. The sailboats were of particular interest because recent information indicating a much greater and extensive maritime trade with large, reed, wash-through ships has been made available. Thor Heyerdahl, constructing such a ship from the reeds of the Tigris Euphrates delta region in 1980 has demonstrated that such ships could sail to India and to Africa. The concept that the civilization of Bahrain may have antedated Sumer is compatible with a new theory suggested by Heyerdahl (Ref. 10) and discussed under II,C of this chapter. From the records of Ur there is evidence of the presence of boats of almost one hundred tons and a ceramic boat model in the Iraq Museum with a cylindrical footing for its mast dates back to at least 4,000 B.C. The potters' wheel was invented in Erech about 3,000 B.C., perhaps along with the brick mold.

These same Sumerians developed the duodecimal system of measurement giving rise to our twelve inches to the foot, sixty minutes in an hour and three hundred sixty degrees in a circle. In addition to the island "Dilmun", they mention "Magan" as a distant copper mountain and "Meluhha" which may well have been the great Indus Valley civilization. At 5,000 B.C. they had primitive irrigation systems used to water fields as far as three miles on either

side of a river. The resulting larger and richer crops, along with the necessity of water administration systems, probably led to the growth of some of the towns. Eventually, however, this leaching out of the earth's salts led to soil infertility. The food of Sumer included barley, wheat, millett, chickenpeas, lentils, beans, turnips, onions, garlic, leeks, cucumbers, lettuce, cress and mustard. There was plenty of fish and some beef and veal if one could afford it. The beef source, however, was from animals after their useful worklife was over and therefore it was tough. Mutton was common along with goat and pork, the last only until about 1,800 B.C. The Indo-European nomads roaming through the Mid-East may have started the loathing of pork, since they could be herded only with difficulty and had little stamina for movement. Forty percent of the Sumerian grain yield was used for ale production, but since no hops were available there was no true beer.

A temple workman received the equivalent of 2.2 American pints of ale a day and senior dignitaries five times that amount, some of which they may have used as currency. The cultivated grape came to Mesopotamia from the Caucasus about 5,000 B.C. and in later years, as the irrigation soured the soil and grain became more difficult to grow, many people took to either grape or date wines. (Ref. [12](#), [13](#), [14](#), [15](#), [16](#), [17](#), [18](#))

AKKADIA-KISH This second center of civilization consisted of a Semitic people living to the north and west of Sumer with a separate culture. There is evidence that their Third Dynasty was in effect as early as 3,638 B.C. More will be heard about them in the next chapter.

IRAN (PERSIA)

A third center of civilization with copper weapons and tools, hieroglyphic writing and domesticated animals appeared east of Sumer, with a capital at Susa. Older writers thought that they might have been a Negroid² people, some moderns feel that they were probably the ancestors of the Medes, while McEvedy (Ref. [19](#)) writes that they were relatives of the Sumerians, in that they were a part of the original Caucasian race of Georgians. We are speaking of the ancient country of Elam, a part of present Iran. There was much copper around the southern Caucasus, the shore of the Caspian Sea

and down to the Persian Gulf. Remains of a Chalcolithic culture have been found at Anau, Tepe Hissar and Rarjy dating to 3,000 B.C. Painted pottery cultures with mixed farming and trade activity existed in central Iran in the 2nd half of the 5th Millennium. Copper lying free had been found and hammered into utensils beginning about 7,000 B.C. and about 5,000 B.C. copper was obtained by firing malachite which releases the flowing metal at a relatively low temperature. Tin ore, of ten found with malachite, soon yielded its metal and the tin-copper (bronze) alloy resulted in some areas by 3,800 B.C. The best bronze, consisting of 15% tin, is three times as hard as copper alone. (Ref. [20](#), [21](#), [22](#))

ASIA MINOR

In this era there were colonies of the Cycladian civilization along the coast and a well developed Chalcolithic culture of basic Caucasian peoples inland. A 1978 study of skeletons from a dig at Kalinkaya in central Anatolia, dating to this period, indicated that the people were relatively short, the men averaging five feet four inches and the women just five feet. 20% of the women had healed ankle fractures or foot bone changes, probably from falls in their rocky country homes. There is some indication of nutritional stress in bowed tibiae, flattened long bones and flattened pelvic inlets. 33% of the limited number of skeletons studied showed vertebral osteoarthritis (compared to 50% in modern United States), and 12% showed extremity osteoarthritis (compared to 29% in modern U.S.) (Ref. [24](#)). Agricultural societies were well distributed and there was trade and migration with other countries of the Near East. (Ref. [25](#))

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1. As noted in the previous chapter, Trager (Ref. 11) says that the wheel was invented much earlier, just after 6,500 B.C. in Sumeria
2. As for example, H.G. Wells, (Ref. 23)

The Near East: 3000 to 1500 B.C.

THE NEAR EAST

In addition to some new civilizations appearing in this region there were great changes in the old one. We must realize that in this single chapter we are reviewing events spanning 1,500 years or a period equal to that from the time of Christ to the Reformation in Europe. In a few limited ways, there was actual regression in the Near East at this time as the local tin deposits became exhausted and the area slipped back out of the Bronze Age.

THE ARABIAN PENINSULA

Nomadic Semitic tribes continued domination of the central areas of the peninsula, while other Semitic empires controlled the fertile northwestern region of Arabia and present day Jordan. About 2,250 B.C. the Akkadians were extending their influence down into this area and some 400 years later an Arabian tribe of Amorites began their first expansion and began to overflow this entire area of the Fertile Crescent, rolling over into Mesopotamia and beyond.

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

The ancient basic population of this area were Canaanites, originally Semitic nomads who had early migrated north from Arabia, but in the period under review, two other peoples appeared--the Jews and the Phoenicians. (Ref. [1](#))¹

1. ISRAEL

Semitic speaking people lived a Bronze Age urban life in Palestine from 3,000 to 2,200 B.C. but then for two or three hundred years the city life appears to have been destroyed by an invading nomadic people, probably the Amorites from deep in the Arabian peninsula. After 1,900 B.C. population returned to the urban areas and that period may then be described as the true Canaanite era. The African camel was used in Palestine for caravan trade by 1,600 B.C. The exact time of the arrival of the Jews is debated. Their own tradition says that they came from Ur in about 2,200 B.C., but they probably came up out of the Arabian Peninsula somewhat later. They too, of course, were a Semitic group who rarely intermarried with other stocks, yet some feel that they received their characteristic nose from the non-Semitic Hittites. (Ref. 3) During these early centuries the Jews remained as twelve more or less independent tribes, with a state of civilization developing about 1,800 B.C. Most of them then entered Egypt between 1,800 and 1,650 B.C. perhaps with their "cousins", the Hyksos. It is said that Judaism was founded by Abraham, a prince of Ur, living in Canaan in 1,700 B.C., as he replaced human sacrifice with sacrifice of rams. (Ref. 4, 5, 6)

2. LEBANON (PHOENICIA)

The origin of the Phoenicians who founded the city of Tyre and settled along a strip of coast one hundred miles long and ten miles wide, about 2,800 B.C. is not definitely known, but they may have been simply another Semitic tribe from the region of the Persian Gulf. From 2,600 B.C. on, they were the busiest merchants of the ancient world, manufacturing forms of glass, working metal and producing a famous purple dye from Mediterranean mollusca. The forest of Lebanon supplied the entire middle east with timber and the incredibly durable Lebanon cedar allowed the early Phoenicians, as well as the Hittites, to abandon the earlier papyrus reeds for boats of wood. These people were shrewd traders, stealing from the weak, cheating the stupid and dealing honestly with the rest of mankind. They sailed the seas in seventy feet long, narrow galleys with oars and one large rectangular sail, developing the art of navigation as they sailed from their home cities of Tyre, Byblos and Sidon to develop a great colonial empire. They were known in

the Bible as Sidonians. Ugarit was a Canaanite and Phoenician city which has been dubbed the "Shanghai of the mid-2nd millennium B.C.", because it seemed a cross-road of world trade. Texts in Sumerian-Akkadian, Hurrian, Egyptian and Hittite have been found there. The oldest known alphabet was apparently native Canaanite, later improved by the Phoenicians. Some texts show close association of Hebrews to Canaanites before the time of Moses, and much of the moral teaching and ideals of justice of later Hebrew prophets were foreshadowed here and there are parallels to the later Biblical psalms, etc. (Ref. 7, 8)

The timber resources of Lebanon were already considerably depleted by 2,000 B.C. but they have continued to be exploited right down to the present time. Olive oil, grain, grapes, sheep and cattle were products in antiquity. Slaves had always been used some, but after 2,000 B.C. large numbers were imported from Egypt, so that it was soon not uncommon for households to have three. (Ref. 9, 10)

IRAQ AND SYRIA

1. MESOPOTAMIA, PROPER

The term "Sumerian" has been coined by scholars from the place name of "Sumer" which by the third millennium was used to mean southern Mesopotamia as apposed to Akkad, the northern part. Sumeria was a city civilization and the important cities of Ur, Uruk, Larsa, Eridu and Kish had populations ranging from 15,000 to 250,000. One or more temple communities constituted a city, with priest administration and work-gangs to operate the irrigation system. The land of the city was divided into several categories, with some fields owned by the gods and worked on their behalf, some fields rented out annually to individuals and others awarded to individuals, rent-free.

The first dynasty of Ur has been dated archaeologically and historically from the King-lists (royal genealogical tablets found on the site) to about 2,700 B.C., but there was a high civilization at Ur before this, perhaps with the city functioning under the suzerainty of the Erech Dynasty. At least what appears to have been a royal cemetery has been excavated, dated prior to the first dynasty of Ur, in which the ritual of burial included human sacrifice, varying from six to seventy or eighty people, sometimes including asses and carts

with grooms and various women's bodies. There was no evidence of violence; the men and women sacrificial attendants probably simply drank a drug and went quietly to sleep. Nothing like human sacrifice was ever mentioned from the later Sumeria. At any rate, the actual, historical first dynasty of Ur was that of Mes-an-ni-pad-da of about 2,700 B.C. and it lasted supposedly for 177 years. During the later part of this time, at about 2,600 B.C. it had succeeded in conquering various surrounding areas, under King Urukagina. This was followed by the usurpation of neighboring Umma by King Lugalzagesi. Situated on the flat lands of the lower Euphrates, Sumer had no natural defenses and the cities became tempting objects of plunder to the barbarous people around. About 2,300 B.C. Sumeria was conquered by the neighboring Akkadians under their great leader, Sargon I. The Sumerian culture seemed to continue in the new, combined empire, however, and a "Golden Age of Ur" resulted. Sargon wrote of ships laden with goods in harbor at his capital and there were caravans of 200 donkeys traveling 12 to 15 hours a day plying between Armenia and Iraq. From 2,112 to 2,015 B.C. Ur remained the capital of this great empire, ruled by the five kings of the third dynasty. Iraq had a population of between four and five million at that time.

One of the characteristic features of each great Sumerian city was the ziggurat and that of Ur has been the best preserved. It has been suggested that if the Sumerians came originally from the Caucasus, one might assume that they felt that their gods had to have a mountain to stand or live on, and so they built the ziggurats, as substitutes. Ur was destroyed sometime after 2,000 B.C. and then for awhile it was under Isin lordship, then under the city of Larsa and finally under the Elamites who came from south Persia. The Elamite prince, Warad-Sin, who became king of Ur, rebuilt and enlarged the temples of the ancient city and his successor, Rim-sin served as king of Larsa also, and during his reign the population of the "old town" of Ur, that is, within the original walls, included an estimated 4,250 houses, probably with 34,000 people. The whole city, then, must have exceeded 250,000 and may have been twice that large. It was a manufacturing center with raw materials imported, sometimes from overseas via the Persian Gulf. Gold, copper ore, hard woods, ivory, pearls and precious stones were all brought by ship and recorded in bills of lading. (Ref. [11](#), [12](#), [13](#))

But Ur was not to last much longer. Although there is still some

disagreement about dating, we shall assume that Hammurabi started his rule in Babylon in 1,783 B.C. and then in the 12th year of the reign of his son, Samsi-iluna, the Babylonians destroyed the walls of Ur with a terrible thoroughness and laid waste to the city. Up until that time, all the tablets and texts of Ur (and there were thousands of them) were written in the Sumerian language (Caucasian?), but after that destruction the tablets were in the Babylonian language. The invaders took over the cuneiform writing, but the Sumerian language itself became a dead literary and religious tongue. This fall of Sumeria may have been prepared in part by internal disintegration and class wars within the city-state (Ref. [14](#), [15](#))

The conquering Babylonians were actually Amorites and the new combination of Amorite-Akkadian-and non-Semitic Sumerian civilization became known as the Babylonian¹, with the Semitic strain the dominant one. Hammurabi had forged out this empire and put his capital at Babylon. (Please note the map below).

NOTE: Insert Map taken from Reference 97.

Agriculture thrived as great new irrigation canals were developed. The Babylonians, of the same basic stock as Abraham and the later Hebrews, or Jews, had the beginnings of astronomy and the ability to predict eclipses. They had a calendar and could handle cubic equations with two unknowns. The Babylonian society demonstrated the development of an imperial political theory, an improved administrative technique, especially through the use of written communication, the development of a bureaucracy and professional army, and finally better methods of inter-city and inter-regional trade, along with the promotion of an independent merchant class. A code of laws, based on Sumerian prototypes, has become famous as the Code of Hammurabi, put into effect about 1,750 B.C. This code covered most ordinary life activities, even condemning ale houses for under-strength, over-priced beer. Forty percent of the grain in some cities went to the manufacture of beer. The code also regulated many medical fees for such things as treating severe wounds, tumors, and broken bones. The fees were high - for example, that for successfully treating a freeman's broken bone was five shekels of silver, a value equal to the yearly rent for a middle-class dwelling. But the punishments for poor medical treatment were equally elevated. (Ref. [17](#), [18](#), [19](#), [20](#))

Sometime about 1,600 B.C. or perhaps slightly earlier, Babylonia

was conquered by a combined force of Aryan (McEvedy, [Ref. 136], says Caucasian) Kassites¹ from the east and Hittites from near Asia Minor. The Hittites quickly withdrew, taking the Sumerian script with them, leaving the Kassites to rule Babylonia for about six centuries. Some believe that they brought the horse with them from the Samartian flatlands. On the other hand, Lewinsohn (Ref. 21) says that riding horses were first mentioned in historical records at the time of Hammurabi, about 2,000 B.C., although chariots had been used earlier by Sumerian kings. As mentioned earlier, Mesopotamia was the home of the spectacular, brick-built temple monuments called "ziggurats", many having been built between 3,000 and 500 B.C. Among the first of these was one called the "White Temple", probably dedicated to Amu, god of the sky, at ancient Uruk (Erech of the Bible), capital of several Sumerian dynasties. It was built about 3,000 B.C. on a platform forty feet high. Even the Kassites built ziggurats - the remains of a spectacular one still some two hundred feet high, remains at Aquarquf, the Kassite capital just west of Baghdad. (Ref. 22, 23, 24)²

2

(Ref. 25) It was in the Mesopotamia area that the two-wheeled chariot was invented about 1,800 B.C. as a result of the development of spoked wheels with a friction-reducing hub and axle design. The compound bow was also developed so that mobility and fire power in war were greatly increased. The steppe people were best able to take advantage of this and between 1800 and 1500 B.C. waves of barbarian charioteers overran the Middle East. At the same time rich merchants were using donkey caravans to move tin eastward and textiles westward, from the Persian Gulf to Anatolia, with profits up to 100% in a year. (Ref. 26)

2. SYRIA AND ADJACENT AREAS

Recent excavations in northwestern Syria between what was subsequently Ugarit and Carchemish, indicate that a great empire with a capital city of Ebla existed prior to and after the 23rd century B.C. Fifteen thousand cuneiform tablets with commercial records, treaties and chronicles have been found, written in a previously unknown Semitic language. This is four times the number of all previously found texts of this period. It is evident that metallurgy, textiles, ceramics and woodworking were well

developed. Thirty thousand people in the City were surrounded by about 250 million in the immediate area.

More than five thousand geographic names appear, indicating far greater settlement of the Near East at that ancient time than previously believed. Beirut and Byblos, Damascus and Gaza, as well as Sodom and Gomorrah are all mentioned. Some people named may be the Abraham, Esau and Saul, of the Bible. The language and culture of Ebla may have survived in such later Canaanite centers as Ugarit and even Palestine. Thriving by 2,400 B.C. (or even 2,500), Ebla's kings apparently contended with Sargon of Akkad for domination of the Euphrates area. Sargon's grandson, Naram-Sin, conquered Ebla, but it rose again, only to fall once more about 2,000 B.C., perhaps wiped out by the Amorites. Their language has been identified as a forerunner of all the Canaanite dialects, which include Ugaritic, Phoenician and Hebrew. Translation became possible because of the finding of some dual language dictionaries, containing both Sumerian and Eblaite. (Ref. 27)

At times war and at times periods of cooperation occurred with another powerful city, Mari, about half-way down the Euphrates from Ebla to Babylon. The French excavations at Mari show a royal palace of three hundred rooms and courts and evidence of Egyptian trade. At one time Mari was ruled by Shura-Damu, son of Ebrium who had been probably Ebla's greatest king. These kings were elected and Ebrium had served four terms of seven years each. (Ref. 28)

To the northwest were the Assyrians who began to rise as a militant power by 1,700 B.C. and to the southwest, between the Assyrians and the Egyptians, was another Semitic tribe which was originally a Bedouin group appearing from the Syrian desert and whose descendants are today's true Syrians. They may have been pushed north and east as the Hyksos were expelled from Egypt. They made Damascus their chief city. Of greatest importance, however, was the migration of the Amorites who came out of the desert about 2,100 B.C. to take over most of the entire area, including the city of Babylon and then the entire Euphrates Valley. (Please see paragraphs above on **Mesopotamia, proper.**)

Finally, coming out of their original homeland east and north of Lake Van (Armenia) as early as the late 3rd millennium B.C. were an Asianic-speaking people called Hurrians, who settled in large numbers in northern Syria and Mesopotamia. Although the

Hurrians, themselves, may well have been of the old, original Caucasian race, they apparently had an aristocracy of Indo-European origin called "Mitanni". By 1,600 B.C. they had a series of kingdoms. Some authorities believe that they introduced the horse and chariot to the Near East as war vehicles. What is often called the Mitanni Kingdom was actually a federation of Hurrian states under the kings of Wahukanni. At one period, King Tushratta captured and held the stone capital of Assyria, Nineveh. (Ref. [29](#), [30](#))

IRAN (PERSIA)

The Bronze Age on the plateau of central Iran began about 3,000 B.C. A basic agricultural economy was soon augmented by export of lapis lazuli from the northeast and steatite (soapstone) from the southeast. The metal industry followed that of Elam and Babylonia. The Elamite civilization with its capital at Susa continued to flourish in a limited geographical area and their antagonisms and military vigor were manifested in their raids of Sumer. The Mitanni and the Hurrians lived in parts of northern Iran before their migrations into northern Syria. Writings appeared early in Persia, notably in the region of Elam, where the cultural relations were closer to Mesopotamia than to the remainder of Persia. Elamites also had indirect trade with Egypt. (Ref. [31](#), [32](#))

The linguist, Pei (Ref. [33](#)), believes that the Indo-European peoples and their basic language originated by about 2,500 B.C. either on the Iranian plateau or about the Baltic Sea, while Wells (Ref. [34](#)) would put the date several thousand years earlier (See also Eastern Europe). McEvedy (Ref. [35](#)) indicates a southern Russia and lower central Asian origin around the Aral Sea, with these early Indo-Europeans, which he labels "Iranians", as beginning migrations from central Asia down into Iran by 2,250 B.C. and even pushing into Syria by 1,600 B.C. Their gray Gurgan pottery is found at the excavation site of Tepe Hissar just south and east of the Caspian Sea. These same Iranians spread across central Asia, becoming the base population of the steppe, while another segment moved south, eventually invading India. As the Iranians stormed into the Middle East at the end of the time period under review, they were accompanied by clans of the Caucasian Kassites and Hurrians, with war chariots. (Please also see Europe: 5000 to 3000 B.C.). (Ref. [36](#),

ASIA MINOR (ANCIENT ANATOLIA)

Prehistoric copper cultures have been validated by excavations of Troy (3,000-2,400) and Alishar Huyuk (3,000-2,800). As these great copper supplies were developed, the axis of history began to shift to this Mediterranean region and away from Mesopotamia. About 3,000 B.C. there were a series of local early Bronze Age cultures, including the Yortan Culture of northwest Anatolia, which had close relationships to the Cycladic Culture of the Aegean, and the first Troy (Kisarlik). The Trojan artisans learned to toughen copper by alloying it with small amounts of tin by about 3,000 but the source of this tin is unknown. Regional divisions in the peninsula became quite marked with each controlled by a native dynasty and metropolitan centers soon became quite wealthy. (Ref. 40) By 2,000 B.C. the Assyrians had trading posts in the area, such as at Kanesh (modern Kultepe) where the form of certain names in tablets indicates the arrival of an Indo-European speaking people, the Hittites. By 1,750 B.C. the latter had become a dominant military caste, controlling important cities. They may actually have appeared first some five hundred years earlier, settling in the bend of the Halys River, but their origin is much disputed.

Traditionally they have been described as coming down from the region of the Caspian Sea, but more recent studies would suggest that they had origin from the Aegean Sea peoples and came at this period from the shores of Greece and the Aegean Islands, along with their kinsmen, the Luvians (also Luwians). The Hittite migration was only the central component in a trio of displacements. From north of the Black Sea the Usatove were moving into the Balkan area and at the base of the Anatolian peninsula the Caucasian Khirbet Kerak were moving down into Syria and even into Palestine. These people have also been called Hattites and represent the original population of Anatolia.

The Hittite language had declensional and conjugational forms similar to both Latin and Greek and some of their simple words were visibly akin to modern English, such as:

- Vadar - water, and
- Essa - eat.

The Hittites had sharp, aquiline noses and Wells (Ref. 41) felt that they had fused sufficiently with the early Hebrews to give the latter this nose as a trademark. The basic population of Turkey, today, also has this physical feature. The Hittites had iron and used it.

Their society was probably related in some way to the Sumerian and many of their customs were similar. Politically they had a warrior aristocracy, but they also had art, religion and writing, all exhibiting close affinities with Mesopotamian models. The first known rulers of the old Hittite Kingdom were Labarnas and his son Hattusilis II. In 1,595 B.C., under Muresilis I, they conquered Babylon. The Luvians, related to the Hittites, had penetrated Asia Minor during the latter part of the 3rd millennium B.C. and were soon active in the west with a principal city of Beycesultan on the River Meander. That city was destroyed in 1,750 B.C., perhaps by the Hittite King Labarnas I.

East of the Hittites was the area of ancient Armenia, known in that time as "Urartu" and in some places in the Bible as "Ararat". The people we call "Armenians" today, however, probably did not arrive until at least the 8th century B.C. Even in the early time of the third millennium the overland trade routes of traders to the steppes of Asia crisscrossed this land, and the indigenous population was skilled in the secrets of ancient metallurgy. In at least the later part of the period under survey, the basic population of Urartu was comprised of the non-Semitic, probably Caucasian, Hurrian and Vannic peoples. (Ref. 42, 43, 44)

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1. As with the Hurrians and Mitannians to be discussed later, it is probable that the Caucasian Kassites were led by an Aryan (Indo-European aristocracy. (Ref. 16)

The Near East: 1500 to 1000 B.C.

THE ARABIAN PENINSULA

There were multiple nomadic tribes in the Arabian Peninsula and very dry areas were opened for settlement by the use of lime plaster for watertight cisterns. In present day Jordan, Ammon became the capital of the Ammonite tribe and legend has it that this city was conquered by the Judean King David. The Aramic-speaking Arameans lived primarily around Palmyra and with their camels they began to attack the "fertile crescent" to the north and east. At about 1,000 B.C. they began to migrate east to Babylonia, north toward Asia Minor and west to Damascus. Their relatives, the Chaldeans, began to emerge from central Arabia and also started toward Babylon, and more particularly toward Ur, in Sumer. (Ref. 1)

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

About 1,500 B.C. an entirely new type of writing was recorded for the first time, in the Sinai Peninsula. This was an alphabet in which each sign represented one consonant. It soon spread among the Phoenicians and other Semites on the coast. Although originally written in a cuneiform, the Phoenicians later replaced it with letters which could be written faster on paper. The derivation of various mid-eastern scripts is as follows:

Note: Insert chart from p107

ISRAEL: PALESTINE: JUDEA

Peoples of Semitic speech occupied Palestine in successive waves, including Amorites, Hebrews, Israelites and Arabs. Egypt, under Thutmose III, conquered Palestine in 1,479 B.C. and controlled the area almost continuously thereafter in this period under review. This is probably the time of the "Exodus" of the Jews from Egypt back to the "Promised Land" in the vicinity of Palestine. The true history of their long migration back and the trials and tribulations with other tribes along the way and in the regions of Judea and Palestine are mixed with legend and myth in the Old Testament, which was written much later. Saul became the first king of the Jews in 1,025 B.C. and supposedly David became king in 1,010 B.C. Unfortunately there is no contemporary mention of this in any literature except the Bible and the later Greek historian, Procopius. Throughout this era the Jews were dominated by the Philistines who were probably refugees from the collapsing Cretan civilization, or were Luvians, or both. In one battle, dated at 1,141 B.C. by Trager (Ref. 2), the Israelites lost 4,000 men and later lost another 30,000. The Philistine invasion was a part of the Sea Peoples raids which plagued the entire Mediterranean coast at that period. (Ref. 3)¹

1

C. was occupied by Canaanites. The city had a very large house or palace measuring 19.2 meters by 16.5 meters, with a paved courtyard. There was a large amount of imported pottery from Mycenaea, Greece and Cyprus. When the Sea Peoples arrived, they actually occupied and settled many coastal towns, including Ashdod, Ashkelon, Gaza, Ekron and Gath. (Ref. 4)

LEBANON: PHOENICIA

The Phoenicians, as a people, cannot be differentiated from the general mass of Canaanites until sometime in this 2nd half of the 2nd millennium B.C., but by 1,200 they had liberated themselves from Egyptian domination and they soon became the true masters of the Mediterranean seaways, sailing to Italy, Spain and all along the coast of north Africa. They may even have sailed around the continent of Africa. Present day Beirut, however, was still subject to

the Amorites at that time. The importance of their alphabetic script is indicated in the chart above.

IRAQ AND SYRIA

BABYLONIA (MESOPOTAMIA)

Babylonia, on the lower two-thirds of the Tigris and Euphrates, remained throughout these five hundred years chiefly under Kassite rule and there was little progress in civilization except during the reign of the Kassite king, Kurigalzu II, who was a great builder. He constructed innumerable monuments, not only in Ur, but in other southern cities. No one knows the reason for this sudden spurt of industry, but the growing signs of strength in neighboring Assyria and Mitanni and in the area of the Hittites may have been a factor. Unfortunately none of the Kassite monuments were particularly artistic. As mentioned in the last chapter, these people were probably a mixed body of warriors with at least two linguistic elements, an original Caucasian and an Indo-European. The Kassites were overthrown by raiding Elamites in 1,157 B.C. and the previously great city of Ur then sank into obscurity for at least three or four centuries. (Ref. 5)

ASSYRIA

To the north and west of Babylonia, proper, the Assyrians were accumulating in an increasing number of city-states, at first just in the area immediately around Nineveh, Memrud, Arbil and Asher. In 1,244 B.C., however, Tukulti-Ninurta took over a great deal of old Babylon and apparently contested with the Kassites for most of Mesopotamia, so that the latter were squeezed between these invaders and the raiding Elamites from the east. By 1,115 B.C. the Assyrian Tiglath-Pileser I had lost some territory on the lower Tigris but had gained a precarious corridor to the Mediterranean north of Damascus, between Arwad and Sidon.

NOTE: Insert Illustration - Map Reference 97

Up to 1,380 B.C. various Mitannian lords had been dominant in that

area, but after Shalmaneser I united the Assyrian states under one central rule, the Mitannians were kept in a small kingdom just to the west of Assyria. The Assyrians were a mixture of warrior Semites from the south, non-Semitic tribes of Hittite and/or Mittanian origin from the west and Kurds from the Caucasus. They used a common language taken from Sumer, but modified it to practical similarity with Babylonian. Multiple languages persisted, however, making work difficult for the scribes, so that those of Ugarit finally reduced the repertory of signs for their own language down to thirty.

Prior to 1,250 B.C. there had been a great struggle for control of the Assyrian lands, which was the same area that has been known with variations in its borders, throughout history chiefly as Syria, including the cities of Byblos and Damascus. The struggle for control by Egypt, the Hittites, the Ugarits, Babylonians and Mitannis, all using essentially the Babylonian language and chariotry, occurred because Syria was the junction for all trade routes between the East, Asia Minor, the Aegean and Egypt. From 1,500 to 1,400

B.C. the Mitanni intermittently controlled all north Syria and Cilicia but from 1,380 to 1,346 the Hittites cut them off and dominated the region. After 1,200 B.C. there were waves of barbarian invasions which included the Hebrews, Philistines and Arameans, as well as the Sea People, Chaldeans and Medes. By the 12th century B.C. the dominant people in Syria were the Arameans, who became the greatest inland traders and whose language became the paramount commercial tongue. Damascus, at the end of the major caravan route across the desert, became the most important city of the region. (Ref. 7, 8, 9)

IRAN: PERSIA

In the northern and western parts of Persia, cultural traditions were broken about 1,300 B.C. with the appearance of monochrome, polished pottery along with the definitive Iron Age, and the arrival from the northeast of the Indo-European languages, as the Medes and Persians migrated down from areas of central Asia. In the southwest, Elam continued as a more or less independent state with a high cultural level which reached its height from 1,300 to 1,100

B.C., reaching a special peak under Untash-Gal. The largest surviving ziggurat in the world, some 170 feet high with five levels, is at Tchoga Zanbil, some eighteen miles from Susa, the ancient capital of Elam. In the middle of the 12th century B.C. Elam had a brief expansion into the Dujala area and eastern Assyria (old Mesopotamia), when the leaders were probably seeking to gain control of the Zagros trade routes. The Elamites had a glass technology and cast bronze. (Ref. [10](#), [11](#), [12](#), [13](#))

ASIA MINOR: ANATOLIA

The famous Trojan War, formerly considered only an Homeric legend, probably actually occurred about 1,200 B.C. with Agamemnon leading the Mycenaean Greek forces against Troy. Homer said that the Thracians, led by King Rhesus, came to the Trojans' aid, and it is known that at that time the Mycenaeans did assume power over all the eastern Mediterranean. Hittite and Egyptian chronicles seem to confirm this. Farther inland the Hittites, under their greatest king, Shubbiluliu (also Suppiluliumas) reconquered central Anatolia and northern Syria and reduced the Mitanni to a small vassal kingdom by about 1,350 B.C. and all north Syria was under their control by 1,340. In 1,250 they forced Ramses II of Egypt to acknowledge their king as his equal. Carchemish, in Syria, was one of the more important of the smaller Hittite states, and the people were the Hittites mentioned in the Bible. At that time, what little iron was available in the world was in the Hittite Anatolian kingdom, but it was worth forty times its weight in silver. In fact, it is said that the Chalybes, a sub-tribe of the Hittites, even made steel bars by about 1,400 B.C., using them in limited quantities for knives and swords. (Ref. [14](#), page 282) The Hittite language is the earliest documented Indo European tongue and was written usually in cuneiform script borrowed from Mesopotamia about 1,500 B.C. The capital city, Hattusas, was protected by a massive, dry stone wall three and three-quarters miles around. Some of the stones were as large as twenty-six by twenty feet. When this capital was mysteriously sacked about 1,190 B.C., the brick houses of Hattuses were subjected to such intense heat that the bricks fused. It should be realized that the Hittites had access to the same Lebanese cedar forests as the Phoenicians and that they built

elaborate wooden ships even before the latter. Ancient Hittite seals indicate that they also built reed ships. Remarkable conformities exist if one compares the early Hittite civilization and the early Olmec civilization at La Venta, Mexico. The similarities include motifs and technique of highly specialized ceramic effigy jars, stone statues with inlaid shell and obsidian eyes, adobe mounds, a solar deity sculpted with a feather crown and a body half serpent and half bird (plumed serpent) and some hieroglyphics - completely different from other middle eastern scripts. (Ref. [15](#), [16](#), [17](#), [18](#))

At the end of the 13th and in the 12th century B.C. part of the Hittite territory was taken over by the upsurging Sea People and in the 11th century, the Assyrians took over the rest, so that the Hittite civilization, as such, died out or was absorbed in the next few hundreds of years. Phrygian invaders from Thrace, and Luvians, may have played a major part in this destruction of the Hittite Empire. As the political entity collapsed, however, these ironsmiths of Anatolia then spread far and wide, taking their iron weapons with them so that their culture actually survived in neo-Hittite kingdoms, particularly in north Syria near Carchemish. (Ref. [19](#))

Still farther east, in Urartu, also known as the Kingdom of Van and later as Armenia, the Hurrian and Vannic peoples (related to the Mitanni) whose languages were related continued their own high level civilization.

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1. Ugarit, on the Syrian coast, was the great Canaanite capital. Excavated by the French in 1921, the city is thought to have contained about 10,000 people with a highly developed sanitation system. It had a library of cuneiform tablets. (Ref. 6)

The Near East: 1000 to 700 B.C.

THE NEAR EAST

THE ARABIAN PENINSULA

North and south Arabia presented two separate ethnic groups, separated by a vast central desert. The northerners were nomads, but the south had an advanced culture with urban living, a high social organization, a unique irrigational system and a relatively advanced technology. Several kingdoms existed, such as the Minaean and Sabaean (Yemen). The Queen of Sheba, also called Queen Balkis, supposedly came from the latter country. It is generally supposed that this Queen, who has really never been further identified, came from the land of Sheba, or Yemen, yet there is no historical mention of the culture of the nation of Sheba until about two centuries after the Queen allegedly visited Solomon in Palestine. Exploration and excavation of that area of Yemen has been hindered by Islamic attitudes, for Sheba was cursed by the Prophet Mohammed as a pagan land, and all recent attempts at excavations have been totally thwarted by the present Moslem inhabitants. At the time of the legendary visit of the Queen of Sheba to Palestine, Solomon's power was at its peak. His garrisons controlled all the roads from the Euphrates to the Sinai and from the Red Sea to Palmyra. His army included 12,000 horsemen and 1,400 war chariots.

Camels, which had been used by the Arameans for a long time, came into common domestic use about 1,000 B.C. and became more and more important for desert trade routes and war. Four camels can carry a ton of merchandise and go for three days without water, covering twenty-five miles a day. A major camel route from Yemen to Palestine via Hejaz carried Arabia's resins (myrrh, frankincense and balsam) used in perfumes, incense and medicines, but also must

have carried re-exported goods from East Africa and India. The trip required nearly three months by the coastal route. The nomad camel drivers of that era enjoyed a dish of camel hair and blood, mixed and cooked. Marib was the capital of Sabaea, one of the city-states of north Yemen which acquired wealth and power from this camel traffic. An irrigation dam, perhaps built there in that period lasted more than a thousand years. The natives of Sheba, Ma'in, Aqtaban and Hazarmoth were Semites from the north, worshipping the sun, the moon and Venus, which they called Ashtar, and their government was similar to that of Sumer. They were geographically isolated and tough. The city of Amman, in Jordan, gained independence from Solomon in the 10th century B.C., but 200 years later Jordan, as a whole, was conquered by the Assyrians. (Ref. 1, 2, 3, 4)¹

1

C. tell how Gindibu, with 1,000 camel riders from the "Land of the Aribi" aided the King of Damascus against the Assyrian King Shalmaneser II at the battle of Karkor. Overland traffic with camels north and south in the peninsula became safer than water traffic on the Red Sea, with its off-shore islands and reefs and vicious pirates. Small cities near oases or spring-fed wells grew into international centers, rich in goods and culture in this first millennium B.C. An example – Taima in the north, where a religious reformer, Nabonidus, moved from Babylon and built a great palace. The city was surrounded by seven miles of wall. (Ref. 5)

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

The shore line of the Mediterranean assumed great importance in this period of world history, as several separate centers of civilization developed as the probable forerunners of our own civilization. The promotion of Hebrew monotheism forecasted the later development of Christianity, and the rise of the Greek Culture was the dawn of the Greek-Roman world which eventually took over that Christianity and bequeathed it to the western world. Professor Toynbee (Ref. 6) feels that the Phoenicians, Israelites and Syrians of that age, along with the Philistine refugees from the Cretan world and Hebrew nomads from Arabia, all together formed

a separate and distinct society which he called the Syriac. He feels that it was the parent society of both western Christendom and the Islamic Society of later years. This is an interesting theory and convenient, but others do not associate these communities in this way. Toynbee dates the beginning of the breakdown of this group to the death of Solomon, but claims that it continued on to the Universal State in the 6th century B.C. under the Babylonian Nebuchadrezzar.

NOTE: Insert Map from Reference 97

ISRAEL: PALESTINE

Solomon slew all rival claimants to the throne of Judea, including his half-brother, and became king of the Jews from 974 to 937 B.C. Rich copper mines found near the Red Sea and Phoenician merchant trade helped the treasury and gold mining in Arabia allegedly promoted through the Queen of Sheba, was an extra boon. The Phoenicians, in exchange for access to the Red Sea and some twenty Galilean towns, brought technical expertise to Israel. At a place on the Gulf of Aqaba (perhaps modern Elat), the Phoenicians constructed the long distance boats which were their specialty and mounted joint trading expeditions with the Israelites. Wood for the boats came from Lebanon's great cedars and was floated by sea to Jaffe. As an incidental note, Solomon amassed several tons of gold each year, so much that he covered the walls of his great temple with it. Although in many ways unprincipled and with an alleged 700 wives (his first was the daughter of the pharaoh of Egypt) and 300 concubines, he had only one God, Yahweh. There is much confusion about the origin of Yahweh - he may have been one and the same with the Canaan god Yahu, dating back in that tribe to 3,000 B.C. who, taken over by the Hebrews was re-created in their own likeness, or it is possible that the "God Abraham" was a household god brought from ancient Ur, while the "God Moses" may have originated separately, with a fusion of these two accomplished later by Jews who did not come from Egypt. At any rate, Yahveh originally was a god of the desert and war, and could never easily be reconciled with an agricultural deity. Shortly after Solomon's death his son, Rehoboam, refused to reduce the terribly high taxes

and ten northern tribes revolted to form a new nation of Israel around the city of Samaria. Two southern tribes remained at Jerusalem as the nation of Judah. Ephraim (today this is in Jordan) became the capital of the northern country and Jerusalem the capital of Judea (Judah). (Ref. [7](#), [8](#), [9](#))

Judea was soon conquered by the Libyan rulers of Egypt. A hundred years later King Shab, of Israel, held off the Assyrians at Qarqar (853 B.C.) but in another century the Assyrians destroyed adjacent Samaria and besieged Jerusalem, taking 200,000 Jews captive. These were the so-called "Lost Tribes of Israel". Sargon II actually carried out the deportation which was previously ordered by his predecessor, Tiglath Pileser III¹. In this atmosphere of political disruption, economic war and religious degeneration, the Jewish prophets appeared. They were radical, anti-clerical and socialistic. The first was Amos (750 B.C.) followed by Hosea (740 B.C.) who denounced the Israelites for the worship of gods other than Yahweh. Amos and Isaiah, who appeared in 702 B.C., may be considered as the beginning of both Christianity and socialism, the "...spring from which has flowed a stream of Utopias..."² In this period Judah kept some independence but as a vassal state of Assyria. Biblical Hebrew medical ideas were drawn chiefly from the adjacent Mediterranean concepts. They believed in supernatural causation of disease although they did not envision a world filled with demons and spirits at that time. Hygienic laws were enforced for religious and disciplinary rather than medical reasons, and these regulations reached into almost every corner of daily living. The taboo on pork was probably not hygienic or medicinal but simply because pigs competed with humans for the scarce grain and water, while sheep and cattle drank little water and ate only grass. Many of the alleged leprosy cases of the Bible were probably other skin diseases. Some medicines were mentioned in the Bible - mandrake, balsams, gums, oils, and possibly narcotics. No surgery was mentioned except the ritual circumcision. Physicians were taken from the priestly tribe of Levites, and were apparently held in high esteem. (Ref. [10](#))

LEBANON: PHOENICIA

(Please see map in connection with GREECE, this chapter)

This was a period of great wealth and territorial expansion for the Phoenicians. King Hiram, of the city of Tyre, had friendly relations with the Hebrew kings and, as we have noted, entered into many trade agreements with them. The Phoenicians developed an overseas empire, including colonies on Cyprus, the Aegean islands, in Spain and at Carthage in north Africa, carrying and teaching their alphabet to the nations of antiquity and disseminating the use of papyrus. Their settlement at Gades (later Cadiz, Spain) gave them access to the gold, silver and copper from Tartessus. They exported ivory carvings, silver-work, colored glass and fine fabrics. They are said to be the first people who were able to navigate by the stars, sail beyond the sight of land and at night and to voyage on the seas in winter-time. It is to be recalled that these people were probably basically Canaanites and their chief object of worship was the goddess Ishtar, who subsequently became the Greek goddess Astarte. The British Museum has some excellent Phoenician ivory carvings of this period. (Ref. [12](#), [13](#), [14](#))

IRAQ AND SYRIA

Just over the mountains from Phoenicia the Semitic Syrians had been developing an advanced civilization with a capital at Damascus. Although dominated during the three hundred years of this time period by the Assyrians, the true Syrians were a separate people, with their own culture perhaps more closely related to the Phoenicians and Israelites than to their neighbors to the north and east. They worshipped Astarte and also Adonis, who regularly arose from the dead. The Assyrian conquests so gutted northern Syria, however, that the area subsequently remained unimportant for the next 400 years. The Assyrians attacked in waves. Under Ashurnasirpal II and his son, Shalmaneser III (883-824 B.C.) they pushed through to take the entire eastern Mediterranean down to Palestine and northward to the Taurus, which was important as a trade route to Europe and as a source of metals, and then south toward Damascus where they came into conflict with the Arameans and their allies in Israel. (Ref. [15](#)) Soon Damascus itself was conquered by Shalmaneser IV, who was followed after an interval by Tiglath-Pileser III. He then reconquered Armenia, northern Syria, Babylonia and overall extended the Assyrian rule from the Caucasus to Egypt. Their military roads actually facilitated trade by the

native Aramean-Syrians who spread their language and fostered a cosmopolitan culture in the middle east. The last of the wild elephants of Syria were killed off in this period, although tusks were still imported from Africa and perhaps India, for carving. (Ref. 16)

As implied above, ancient Babylonia passed from Kassite to Assyrian control early in this period, but by about 900 B.C., the Chaldeans, who were simply one group of Arameans, began to infiltrate the region and eventually, with help, the Chaldean aristocracy threw out the Assyrians. *** (Page 1185)²

2

The Assyrians, rather than the steppe nomads, may have pioneered cavalry in the use of paired horsemen, with one rider holding both sets of reins so that the second rider could use both hands for his bow. (Ref. 17)

IRAN: PERSIA

In the early part of this first millennium B.C. the people of western Iran were hassled by Assyria and Urartu as well as by raiding Scythians from the north. At about this time, the Indo-European Medes began to migrate down into Iran from just east of the Caspian and by the ninth century B.C. they started toward Assyria, Babylonia and Elam, as the latter still controlled southern Iran.

ASIA MINOR: ANATOLIA

The Hittite Empire slowly crumbled, pushed from the southeast by the Assyrians and from the west by the Phrygians, newly arrived from Thrace. The last Hittite capital at Carchemish fell to the Assyrians in 717 B.C. But meanwhile the Phrygians with their most famous king, Midas, with a capital city of Gordium (near modern Ankara), contended with Assyria and Egypt for master of the Near East. They worshipped the goddess Cybele and the young god Atys, who like Adoni, annually died and was resurrected, in the inevitable pattern of the mid-east. At the close of the 8th century B.C., bands of Cimmerian horsemen from the steppe of southern Russia raided far and wide in Asia Minor, eventually destroying the Phrygian nation. The Lydians, living between the Cayster and the

Hermus rivers were able to repel the invaders and soon took over the entire area. (Ref. 18)

In Urartu in the east, the Hurrian (Vannic) nation recovered from earlier waves of Assyrian attacks and about 800 B.C. became a very powerful nation known as the Urartian Kingdom with Mount Ararat as its center. Recent excavations near Altinepe, Turkey, have revealed architecture and art that have left heritages in later public buildings in Persia and metallurgy that perhaps had influence as far away as the Etruscan civilization of Italy. (Ref. 19) They demonstrated great engineering skill in irrigation works. Prosperous under a succession of kings from Sarduri I (840 B.C.) to Rusa I (714 B.C.), Urartu attained its greatest geographical extent in the reign of Sarduri II (764-735 B.C.), with territory from the Black Sea to the Mediterranean. The "Golden Age" may have occurred under Argistis II (708 B.C.) when the country grew rich by mining iron and selling it to Asia and Greece. Some authorities feel that this was the century when the Armenians, who eventually gave their name to this area, migrated across the Euphrates and intermarried with the indigenous Vans and Hurrians. Ozguc (Ref. 20), however, dates that migration to the next, 7th century B.C. At the end of this period, the Hurrian nation was weakened by combined Assyrian pressure and invasion of migrating Cimmerian hordes from east of the Black Sea. (Ref. 21)

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1. Biblical reference II Kings XV, 29 on 134
2. Durant (Ref. [11](#)), page 319

The Near East: 700 to 601 B.C.

THE NEAR EAST

THE ARABIAN PENINSULA

Northern Arabia and the region of present day Jordan were completely under the control of the Assyrians, but independent civilizations continued in the south, with regular camel caravans traveling to Egypt and to other parts of north Africa. As noted above, Yemen was actually overpopulated and many families migrated to Ethiopia. (Ref. [1](#))¹

1

The rich, well watered area of Yemen, which was then called "Arabia Felix", produced a distinctive Arabic script about 700 B.C.

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

For a short time the Assyrians controlled the entire eastern Mediterranean shore, but after losing thousands of men with a disease (see **Iraq**), they retreated to the region of Syria. In Palestine Josiah became king in 639 B.C. and launched a campaign to purify the religion of Yahweh and to repress all traces of other cults. The Pentateuch, a code of laws designed to re-invigorate the moral life of the nation, was started in 621 B.C. This code supported the prophets by embodying the less extreme of their ideas. To facilitate the acceptance of this, according to Durant (Ref. [2](#)), the elders, with Josiah's permission, conveniently "found" a scroll allegedly from Moses himself. This was the Book of the Covenant which is probably part of the Biblical book of Exodus or Deuteronomy. It is

interesting to note that the prophets Amos and Isaiah had never mentioned Moses.

At the end of the century Judea was overrun by the Egyptians, under Necho, as they started to attack the Assyrians. Only four years later, in 605 B.C., however, the Chaldeans of the second Babylonian Empire soundly defeated the Egyptians at Carchemish, Syria, and Judah then passed under Babylonian rule. (Ref. 3)

IRAQ AND SYRIA

The Assyrians, under King Sennacherib, sacked and destroyed Babylon in 689 B.C. and then proceeded under their General Esarhaddon to the borders of Egypt where, according to the Bible (II Kings), a pestilence struck producing "an hundred four-score and five thousand" corpses, and the survivors retreated to Nineveh. Ashurbanipal became king in 669 B.C. and led Assyria to the climax of its wealth and prestige, destroying Elam in the process. In this reign, the governor of Ur was one Sin-balatsu-iqbi who decided to restore the ancient city, and much was accomplished even though later archeologists say that his brick work was the worst that they encountered in the many strata at Ur. (Ref. 4) King Ashurbanipal was also the first book collector of history, accumulating in this 7th century B.C. a library of 25,000 clay tablets, some of them already 3,000 or more years old, including some medical "books" of ancient Sumer and Akkadia, written in primitive ideographs. In many ways the Assyrians had an advanced civilization, producing, for example, many great engineering feats for that time. Their military might was in great part based on iron weapons, particularly the iron-capped battering ram. They had excellent roads and communications. King Sennacherib had constructed a 919 feet long stone aqueduct to carry a canal across a valley and then continued with a six mile long canal to bring water for his orchards and parks. Palaces had lavatories and bathrooms as modern as some even today in parts of Europe. (Ref. 5) In the end, however, the military activity consumed so much manpower that local production atrophied and all vitals had to be imported. The constant warfare had also killed off the strongest and bravest men, and the biological type was undermined. The captive peoples bred and became a disintegrating force from within. In 612 B.C. an army of Chaldean nomads (an Aramaic people) under General Nabopolassar, with the

help of some Scythians and Medes, defeated the Assyrians in a great battle at Nineveh and the latter disappeared from history. These Chaldeans founded the second Babylonian Empire which controlled Mesopotamia until well into the next century. It was their General Nebuchadrezzar who defeated the expanding Egyptians at Carchemish in 605, giving them access to all the old Assyrian lands in Syria and Palestine. By 600 B.C. Babylon was the greatest walled city that the world has ever known, and Nebuchadrezzar had built it.

In this same period, between about 630 and 610 B.C. still another people appeared in this area. These were the Indo-European Scythians who raided down through Syria, destroying and killing as they went. Their raids were for plunder only and no settlements were made. (Ref. [6](#), [7](#), [8](#))

NOTE: Insert Map from Reference 97. (7. THE EAST)

IRAN

In eastern Iran the Indo-European speaking Medes were growing in numbers and power in an independent kingdom. Their greatest king, Cyaxares, started his reign in 640 B.C. but he had his hands full fighting off the Assyrians in the west and the horse-riding Scythians who periodically descended on them from central Asia, often defeating them

ARMENIA

In the eastern part of the Anatolian peninsula, Urartu (or the Kingdom of Van), after being conquered by the Assyrians, made common cause for awhile with the Scythians and under Rusa II (685-645 B.C.) successfully raided for slaves along the Assyrian frontier as these slaves were the essential foundation of their economy. The kingdom continued to prosper under Sarduri III and briefly under Rusa III until 609 B.C. when the Scythians turned on them and sacked the imperial city on Lake Van, while the Medes crushed the Assyrians nearby. Thus the Kingdom of Urartu came to an end about 600 B.C. The true Armenians were probably a Phrygian tribe which gradually occupied the territory of Urartu

perhaps not until after 612 B.C. They initially adopted the religion of the Persians and were under the kings of Media for a time. (Ref. 9, 10)

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The Near East: 600 to 501 B.C.

THE NEAR EAST

Three peoples of the Near East had absolute monarchies in this century - the Lydians, Medes and the Babylonians. Please see map this section, last chapter.

THE ARABIAN PENINSULA

Incense and myrrh (made from gum resin) were now fashionable as offerings to the gods, and they were produced in south Arabia and sent to the Mediterranean. The Sabeans of Yemen and Hadramaut took over dominance from the Mineans and promoted advanced engineering projects, including a large dam near Marib. Still later the Himyarites became paramount in the area. Northern Arabia was conquered by Darius, the Persian, at the close of the century.¹

¹

C. This was the alleged retreat of Moses, where he met the Biblical Reuel at the well. (Ref. ¹)

MEDITERRANEAN COASTAL AREAS

ISREAL (JUDEA: PALESTINE)

As the century began, internal strife and decay seemed imminent in Palestine. The prophet Jeremiah, writing at about 600 B.C., deplored the status and wrote like an undercover agent of Babylonia, seeming to hope that the Babylonians would conquer the Jews. If so, his hopes were soon fulfilled and Nebuchadrezzar took thousands of Jews as captives, to Babylon. While there, the prophet

Ezekial, like Isaiah and Jeremiah before him, made fierce denunciations of idolatry and corruption of Jerusalem, but at the same time tried to keep the Jews from being absorbed by their captors. Even in bondage they stayed more or less intact, and they prospered and multiplied. But they did take over many Babylonian legends, which appeared later in the Old Testament, intermingled and fused with the true Hebrew stories. (See also **Syria**).

The Jews were finally liberated from Babylon by Cyrus, the Persian, in 540-538 B.C. and they migrated back to their homeland. The prophet, the "2nd Isaiah" (actual author unknown), whose writings may actually be a mixture from several men, began to lift the Judaic religion to a lofty state, re-emphasizing the coming of God and the Messiah. The Jewish Temple was rebuilt in Jerusalem. (Ref. **2**)

LEBANON: PHOENICIA

Phoenicia was ruled from 586 to 538 B.C. by the Chaldean Nebuchadrezzar although the city of Tyre did not fall until 573 B.C. after a thirteen year siege. Later the country was divided into four vassal kindgoms, under the Persians. Extensive sea activity continued, however, and it is possible that a Phoenician ship circumnavigated Africa about this time. (See **Israel**). (Ref. **3**)

IRAQ AND SYRIA

Seeming to foretell the future importance of Iraq as a source of petroleum, even in this 6th century B.C. oil was found on the surface in various parts of the country and was called naphtha. Bitumen was used to calk ships. (Ref. **4**) An independent Babylonia prospered under the reign of Nebuchadrezzar II, the Chaldean, and Babylon became a famed metropolis, known particularly because of its famed hanging gardens. Ass-drawn wheeled carts, oar driven river boats and camel caravans all brought a mixture of food, precious metals, dyes, glassware and textiles to the city. The traffic also brought an occasional plague. (Ref. **5**) This second Babylonian Empire was essentially a Semitic civilization. After an initial attack on Judea, Nebuchadrezzar carried about 10,000 Jews back to the capital, but later almost all the population of Jerusalem was brought in bondage to Babylon, with the captivity period running from 586 to 538 B.C. Nebuchadrezzar supposedly built the ziggurat

of Etemananki, thought to be the infamous Tower of Babel, which has since been destroyed. The base of this tower measured 300 feet on a side. Near the end of his life he also tried to reconstruct the entire city of Ur, making the reconstructed ziggurat a seven-stage one. Even these ancients did not escape periods of severe inflation, and the wars and building activities of Nebuchadrezzar resulted in a 50% rise in prices between about 560 and 550 B.C. (Ref. 6) After the famous king's death, the empire crumbled rapidly, hastened by the aberration of the priests of Marduk, and subsequently the Achaemenid Persians had no trouble taking control of the area. The contributions of Babylonia to posterity include the legends, carried through the captive Jews, that became a part of Europe's religious lore, foundations of mathematics, astronomy, medicine, grammar, lexicography archeology, history and philosophy, as well as the design for the ziggurats, leading later to the Moslem towers. The Persian Cyrus became king of Babylon in 539 B.C. and the city lost its importance for evermore, as the ruler lived in Persia. Cyrus did complete some reconstruction work in Ur, however, restoring a gate in the great wall and probably working on one of the temples. This was done in spite of the fact that there was then little trade to this city. (Ref. 7, 8, 9)

IRAN: PERSIA

As Assyria fell, Cyaxares, king of the Medes, extended his rule on west across Iran, but in 550 B.C., Cyrus, prince of Persia, rebelled against the Medes and defeated their then king, Astyages, joining the two peoples together to make Iran a dominant south- west Asian power. They had iron technology and were able to exploit the horse for communication and warfare. The word "Iran" in Persian is the same as the word "Aryan" in English. Cyrus proceeded to capture Babylonia and almost all of Syria and Sardis, in Asia Minor. This Persian Empire became one of the best governed in history. It soon reached the natural limits in size and extent which were set by the condition of the soil and climate restricting peasant agriculture, abutting on the steppe in the north, the desert in the south and limited on the Aegean only by their long supply line as they came up against the Greeks. (Ref. 10) Cyrus' son, Cambyses, extended the empire into Egypt and then went mad and committed suicide. Darius 1, of the junior Achaemenid line, became king in 521, then

conquered the sick Scythians in Russia and carried the Persian Empire to the Indus River in Pakistan. The official religion of the Achaemenid Dynasty was Zoroastrianism but in the western areas Judaism co-existed as a competing faith, and in some areas this resulted in a complex fusion of both religious themes. Toynbee (Ref. 11) considers this empire the beginning of the "Universal State" of the old Syriac Society, but one must realize that the Syriac state was Semitic and the Persian conquest ended the Semitic rule in western Asia for a thousand years. (Ref. 12, 13)

We should mention that still another Iranian tribe, the Parthians, existed at this time around the southern shore of the Caspian Sea. In this century they fell under the control of the Medes and then the Persians, but as we shall see they will be heard from again in the future.

ASIA MINOR

TURKEY

Although Greek Ionian cities continued to prosper along the coast, the country of Lydia expanded to occupy almost all the remainder of the peninsula. The fabulous wealth of these people and their famous King Croesus (570-546 B.C.) was based on a natural alloy of gold and silver called "electum", and coins were invented to act as a standard measure of this substance. Between these Lydians and the Medes, the Phrygian and Cimmerian peoples of Asia Minor were absorbed, although a fragment of the latter people survived in the Crimea as the "Tauri". By mid-century, just after Croesus had subdued Ionia, on the coast, even Lydia was engulfed by Persia and disappeared as a nation. (Ref. 14, 15)2

2

C. Ephesus, on the coast of Turkey, was a world-class Ionian city, but thereafter silt began to fill up the harbor and it deteriorated. Now the Aegean is 11 kilometers away. A similar fate overtook Troy. (Ref. 16)

ARMENIA

The Medes drove the Scythians out of Armenia by 590 B.C. and the newly arrived Armenians of probably Phrygian origin continued to live there as a vigorous race. Although technically under the

dominion of the Persian Empire in the last half of the century, they remained essentially independent in action because of their remoteness from the Persian center of government. The Armenians retained the Anatolic or Hittite nose.

1

[315] HAMBLIN, DORA JANE, "Treasures of the Sands", Smithsonian, Sept. 1983, pp. 43-53.

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[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[238] WOOLLEY, SIR LEONARD, Excavations at Ur. (Barnes & Noble, Inc., New York and Ernest Benn Limited, London, 1955).

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[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

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[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

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[140] MCNEILL, WILLIAM H., Plagues and Peoples. (Anchor Press/Doubleday, Garden City, New York 1977).

11

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

12

[140] MCNEILL, WILLIAM H., Plagues and Peoples. (Anchor Press/Doubleday, Garden City, New York 1977).

13

[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

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[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

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[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

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[281] GORE, RICK, "The Mediterranean: Sea of Man's Fate", National Geographic 162: 694-737, Dec. 1982.

The Near East: 500 to 401 B.C.

THE NEAR EAST (THE 1ST GREAT CENTER OF CIVILIZATION)

ARABIA AND JORDAN

Between the Gulf of Aqaba and the Dead Sea on the trade route between south Arabia and Syria the Nabataean Kingdom developed with a capital at Petra. Because of its location it was influenced by the Aramaic (Syrian) civilization and still later by the Greeks. The Nabataeans migrated up from the south to settle in this cliff area, levying tolls on all caravan goods passing through. Petra had a theatre, thermal baths, palaces and a system of canals for water. This once thriving city, about ninety miles southwest of present day Amman, Jordan, was buried for centuries and only recently excavated by the Swiss Burckhardt. Qataban and Hadramaut were two new kingdoms which appeared on the south coast of Arabia. (Ref. [1](#), [2](#))

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

Many Phoenician ports which were constructed at this period of low sea levels are today below the water line. Both Phoenicia and Judea remained under Persian rule, but their separate reactions differed. While Phoenicia faded away as a country, living in the future only in its colony of Carthage, the Jews strove to keep their national identity.

The priest, Ezra, called the Jews together and they read and adopted the Book of the Law of Moses, which was probably the first five books of the Bible, the "Torah" or the "Pentateuch". Those stories were drawn from a storehouse of Mesopotamian legend as

old as 3,000 including the legends of Paradise, the Flood, etc. Nehemiah rebuilt the walls of Jerusalem (445 - 433 B.C.) and enforced the observance of the law. (Ref. 3, 4)

IRAQ AND SYRIA

This entire area was a part of the Persian Empire, but there was a revival of Damascus as a cultural center. At the end of the century Darius II died (405 B.C.) and his son Artaxerxes II became emperor while a brother, Cyrus the younger, became Iranian viceroy in the west. The latter recruited a force of ten thousand Greek mercenaries and marched them across Asia Minor into Syria and Mesopotamia to revolt against his brother. in a great battle at Cunaxa in 401 the Greek troops defeated the Persians, but Cyrus was killed and the mercenaries retreated with some difficulties back to the shore of the Black Sea and then home. The Greek's victory, however, gave them renewed confidence and helped set the stage for Alexander 's later Asiatic invasions. At that time many Jews still lived in Babylonia and some in the Persian controlled city of Ur.

NOTE: Insert Map from Reference 97. 24. THE RETREAT OF THE TEN THOUSAND

401-399 B.C.

IRAN: PERSIA

As the century opened Darius I was continuing his conquests into a part of northern Greece, being finally stopped at the famous battle of Marathon. The Persian Empire now included thirty satrapies (provinces) each ruled by a satrap appointed by the king. In each, also, was a general and a financial officer responsible only to the king. These territories included Egypt, Palestine, Syria, Phoenicia, Lydia, Phrygia, Ionia, Cappadocia, Cilicia, Armenia, Assyria, the Caucasus, Babylonia, Media, Persia proper, Afghanistan, Baluchistan, India west of the Indus, Bactria and other regions of several central Asiatic tribes. The official language was Old Persian, closely related to Sanscrit, and written in cuneiform. The more generally used lingua franca of the empire, however, was Aramaic,

written in alphabetic form. The Persian conquests were made possible by mounted bowmen and Bactrian camels. The latter made the long lances of the Scythians and other enemy tribes ineffective. (Ref. 5, 6)

That Darius was a true "Grand Monarch" is evident from the story that a thousand animals were slaughtered each day for the royal table in Persopolis¹. Upon the death of Darius in 485 B.C. his son, Xerxes I, inherited the great empire. He was a sensual man and with him the "mob of nations", contaminated with drunkenness and immorality, began to fall apart. Xerxes dispersed the Babylonian priesthood and destroyed their temple of Marduk, but when he made another attempt to take the remainder of Greece his troops were turned back at Thermophylae and his fleet was defeated at the naval battle of Salamis². Still lesser kings followed - Artaxerxes I and Darius II, etc. The later Achaemenid kings demonstrated great brutality, in spite of their Zoroastrian religion.

The metal workers of the Achaemenid dynasty period have left numerous small objects of art made of gold and silver. The use of animal shapes was common and the lion, symbolizing royalty and power, and the bull, symbolizing strength, vitality and loyalty being two of the more popular. Later Christian iconography used the same symbols for two of the evangelists - Mark being represented by the lion and the physician, Luke, by the bull. The Iranian artists had the ability to develop light reflection which is said to be a characteristic of the light on the landscape of the Iranian plateau itself. (Ref. 9)¹

¹

Once in Greece, however, he eventually had to withdraw because there was no way he could feed his entire army over the winter. He had exceeded the practical limit of imperial expansion. In this and the next few centuries Iranian warriors bred a large, powerful horse capable of carrying a fully armored man and the horses, too, were protected by metal. Although this heavy cavalry was slower than that of the steppe, it was more or less arrow proof and capable of use with either bow or lance. To feed these great horses alfalfa was supplied by the local peasants as pay for the protection given by those "cataphracts". (Ref.

10)

In the early century this entire area also was merely a part of the Persian Empire, but in the far eastern portion the Armenians retained some measure of autonomy. In 499 B.C. Ionian cities along the coast, led by Aristogoras, revolted against Persia. This so-called "Ionian Revolt" was helped by ships from Athens and Eretria and they succeeded in burning the old Lydian capital of Sardis. Within five years, however, the revolt was crushed, and it was mid-century before the Greeks could again control the coastal cities. (Ref. [11](#), [12](#))

[1](#)

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

[2](#)

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

[3](#)

[224] VAN ANDEL, TJEERD, Tales of an Old Ocean. (The Portable Stanford, Stanford Alumni Assoc., Stanford, Calif. 1977).

[4](#)

[46] DURANT, WILL, The Story of Civilization. (Simon and Schuster, New York). Part I - Our Oriental Heritage. (1954).

[5](#)

[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

[9](#)

[197] SOUTHGATE, M. THERESE, "Explanation of Cover - Rhyton with Kneeling Bull", Journal of the American Medical Association 239: vol. 1, page 4.

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[279] MCNEILL, WILLIAM H., The Pursuit of Power. (University of Chicago Press, 1982).

[11](#)

[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

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[88] HAWKES, JACQUETTA, (Editor), Atlas of Ancient Archaeology. (McGraw-Hill Book Co. New York, etc. 1974).

1. Trager so quotes the historian Xenophon. (Ref. 7, page 15)
2. Xerxes' army crossed the Hellespont by joining about 700 ships, anchoring them and tying the end ships to land, laying planks, brushwood and earth across them. (Ref. 8, page 193)

The Near East: 400 to 301 B.C.

THE NEAR EAST

ARABIA AND JORDAN AND MEDITERRANEAN COASTAL AREAS

Nomadic tribes roamed the deserts of Arabia and in the south there was the Himyarite civilization, as previously described. Otherwise this entire area shared a common fate under first the Persians and then Alexander.

IRAQ AND SYRIA

In this century Xenophon remarked on the size and succulence of the dates from the date trees of Mesopotamia. Palms had flourished there since 50,000 B.C. and the network of canals that were built were ideal for the palms which lined them, and they did not impinge on the grain growing land. An average date palm produces one hundred pounds of rich, sugary fruit each year for sixty years or more, and a very good tree may produce one-half as much again. Figs were also grown and eaten in these ancient days. (Ref. 1)

Iraq and Syria were completely dominated by the Persians until the excursions of Alexander late in the century. He destroyed the Persian army at Gaugamele on the upper Tigris in 331 B.C. and brought an end to the Persian Achaemenid rule. It is said that in the same year Alexander tried to rebuild the Tower of Babel, but the initial clearing of the land alone took 10,000 men some two months to complete, and he had to give up the task.

As others, the ancient city of Ur was dying and the final blow came at the end of the century as the Euphrates changed its course to run some ten miles to the east of this city and there was no more river traffic. (Ref. 2, 3, 4) More detail concerning Alexander's

conquests will be given under the section on the UPPER BALKANS later in this chapter.

IRAN: PERSIA

As noted in the last chapter the state religion of Persia was Zoroastrian monotheism and the ancient gods were out of favor. As the century opened the Persian Empire was deteriorating under a series of weak rulers. Finally Darius III, the last of the Achaemenids (338 - 330 B.C.) lost the empire to Alexander of Macedonia. We shall give more details a little later in this chapter, but a point not often emphasized is that every Persian grandee had bodyguards and troops of Greeks as mercenaries, and this meant that Alexander's chief opponents were of ten Greeks, and they may not have resisted too well ' After Alexander's death Persia was administered from Syria by General Seleucus, who soon became orientalized and founded the Seleucid Dynasty. (Ref. 5)

ASIA MINOR

As the Persian influence waned, Greek domination increased and the bulk of Asia Minor easily became part of Alexander's empire. In the east, but still west of Armenia, in the regions known as Pontus and Cappadocia, a Persian noble, Mithridates, independent of his cousins in Iran, carved out his own empire. The same occurred in Armenia at the end of the century when a Persian satrap made the country independent of the Seleucids (317 B.C.) and founded a dynasty that ruled for a century. In both of these satrapies, as well as in Bithynia, farther west, the basic population was still Phrygian. (Ref. 6)

1

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[238] WOOLLEY, SIR LEONARD, Excavations at Ur. (Barnes & Noble, Inc., New York and Ernest Benn Limited, London, 1955).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

The Near East: 300 to 201 B.C.

THE NEAR EAST

ARABIA AND JORDAN

In Yemen, Sheba absorbed Maan about 250 B.C. but otherwise there was no significant change from the previous century. (Ref. [1](#))

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

This was a part of the Egyptian Ptolemaic Empire until the very end of the century, when it was taken by Antiochus III the Great, of Syria, for the Seleucid domains.

IRAQ AND SYRIA

As the center of the Seleucid Dynasty, this area maintained a Greek culture with an oriental twist. Through the use of records of the movements of the heavenly bodies kept from the 8th century B.C. the Babylonians discovered the periodicity of the eclipses and the mathematical coordinates defining the exact paths of the moon and the sun. The power of the Seleucids began to wane in this century and much of their empire fell away, although at the very end of the period King Antiochus III, called the Great, restored the Syrian fortunes by reconquering their far eastern realms and adding to the domain along the Mediterranean coast from Asia Minor down to the borders of Egypt. He established a library at Antioch and promoted literature. (Ref. [2](#))

IRAN: PERSIA

After Alexander's death the Parthians in the north had revolted against the Greek domination and had formed a separate kingdom under Arsaces¹. These people and the

Persian tribes farther south, gradually eroded a good deal of the Seleucid power. The Parthian King Tiridates (247 - 212 B.C.) transferred his capital to Hecatompylos on the southeast corner of the Caspian Sea, to be on the caravan route from Seleucia to Bactria and at the same time he evacuated Seleucus II. At the end of the century, however, Antiochus III reconquered most of this territory temporarily for the Syrian Dynasty, reducing the Parthian Arsaces III Priapatus to vassalship. (Ref. 3, 4)

ASIA MINOR

Although most of Asia Minor was nominally under Greek control, divided between the Ptolemies and the Seleucids, several states maintained more or less independent kingdoms. In the south the small but fine and powerful kingdom of Pergamum had developed as a Grecian city under Seleucus but it broke free under Eumenes I as he allied with the Ptolemies in 262 B.C. Other non-Greek but Hellenized kingdoms were Bithynia, Cappadocia (Pontus), Armenia and Media Atropatene. Pontus and Bithynia invited some wild Celts, who had just devastated the Grecian peninsula, to come to Asia Minor and settle, hoping that they would act as a buffer between the northern states and the Seleucids. But these Celtic Galatians, once established in central Anatolia, terrorized the cities along the coast. The kings of Pergamum, however, with Ptolemaic help, stood off both the Galatians and the Seleucids.

Pergamum had been founded by the eunuch, Philetairos, former treasurer of the Diadoch Lysimachos who had absconded with the treasury, gone over to the rival Seleucus and used this fortune to finagle a new state of his own. His army was made up of hired mercenaries. Upon his death his nephew, Eumenes, defeated Antiochus and became the most powerful man in Anatolia. Using his inherited money he further built up his army, founded cities, pushed out his borders and paid high tribute to the wild Galatians to keep them at a distance. (Ref. 5) Eumenes' nephew and successor, Attalos¹, actually defeated the Celtic Galatians and then set about establishing libraries, arts, museums, etc. with some of the great artistic treasures of mankind, and the capital city rivaled

Alexandria as a center of learning. An example of the architecture is shown in the picture on the next page - a temple altar of Pergamum, now reassembled in an East Berlin Museum. The pharaoh of Egypt jealously forbade the export of the papyrus plant or its products, so Pergamum had to develop a writing material of its own from animal skin, subsequently called "pergamentum" or "parchment". With this they accumulated some 200,000 books¹. Unfortunately this fabulous little nation lasted little more than a century. (Ref. 6, 7, 8)

In the far eastern part of the peninsula Armenia remained under its own dynasty until 211 B.C. when Antiochus III of Syria took control and divided the country into two satrapies.

1

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

2

[47] DURANT, WILL, Ibid., Part II - The Life of Greece. (1939).

3

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[28] CHEILIK, MICHAEL, Ancient History. (Barnes & Noble Books of Harper & Row New York et al, 1969).

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[91] HERM, GERHARD, The Celts. (English Translation by Weidenfeld and Nicholson Ltd.), (St. Martin's Press, New York 1976).

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[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D., Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York 1978).

8

[15] BOOKS AND MEDICINE, (Editors), M.D. Medical News Magazine, Vol. 3, No. 8, Aug. 1959.

9

[15] BOOKS AND MEDICINE, (Editors), M.D. Medical News Magazine, Vol. 3, No. 8, Aug. 1959.

1. Between 10 and 30 "books" of antiquity would comprise 1 book today, because

either papyrus or parchment made a very thick roll. (Ref. [9](#))

The Near East: 200 to 101 B.C.

THE NEAR EAST

ARABIA AND JORDAN

Arabian dromedary caravan traffic was now the monopoly of the Nabataean Arabs who maintained a series of caravan stations. Upon the collapse of the Seleucids late in the century these Arabs then acquired Damascus itself. (Ref. [1](#))

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

The Book of Daniel was written about 165 B.C. and the Book of Enoch perhaps slightly later. In the former year Judah Maccabee and his brothers, after taking Jerusalem back from the Syrians, restored the monotheistic religion. It was later said that they found only enough oil left in the temple to keep a light burning for one day, but somehow it lasted eight days and this is the event celebrated annually as the Hanukkah. By 143 B.C. Simon Maccabee had freed Judea entirely, beginning the Hasmonean Dynasty of priest kings which ruled Judea and some lands east of the Jordan until 104 B.C., after which Aristobulus I and his brother, Alexander Jannaeus, ruled savagely until well into the next century. (Ref. [2](#))

IRAQ AND SYRIA

Near the Mediterranean coast there was a thriving Hellenic culture centered on the large city of Antioch and the supporting cities of Laodicea and Apamia. The great Seleucid King Antiochus III invaded Greece in 192 B.C. but was soon pushed back by Roman armies and the Roman fleet. In 190 two of the Scipio brothers

crossed the Hellespont and defeated Antiochus in the great battle of Magnesia, near Smyrna in Asia Minor. The result was that the Seleucids lost all European and Asiatic possessions as far as the Taurus Mountains and from then on the old Syrian Dynasty continued to decline. By the end of the century almost this entire area was taken over by the Parthians.

IRAN: PERSIA

Eastern Persia was ruled by the Parthian Arsacid Dynasty and they continued to develop a powerful empire, keeping the administrative structure of the preceding Seleucid government. In 141 B.C. Mithridates I of Parthia entered Seleucia, itself, on the Tigris River and for the next 775 years, with only a few minor set backs, Persia remained one of the richest and most powerful regions of the ancient world. (Ref. 3) Their military system was based on an Iranian nobility but they accorded the Hellenic cities full autonomy and did nothing to weaken the Hellenic stamp.

The western spread of the Parthians was the result, in part at least, of pressure on their northeastern frontier by migrating peoples from the Asian steppes. Some of these may have been a Mongolian people called "Hsiung-nu" by the Chinese, but probably the chief offenders were the Yue-chi, another Iranian tribe returning from a previous expansion into Asia proper. Their immediate descendants were called "Kushans" and they pushed their cousins the Shakas and Samartians ahead of them toward southern Russia and the Parthians down into Persia. (Ref. 4)

ASIA MINOR

TURKEY

Early in the century the Roman armies began to be active in Asia Minor, driving the invading Celts from the north back out of the peninsula, and defeating the Seleucid Antiochus, in the battle of Magnesia, thus inaugurating the Roman conquest of the Hellenic East.

Meanwhile in northeastern Asia Minor activity was rampant in the regions of Bithynia and Pontus. The people of both were mixtures of Thracians, Greeks and Iranians, overlying an antique Hittite stock. Mithridates VI, who now inherited the throne of

Pontus, was a strong, educated man, speaking twenty-two languages and with the help of Greek officers and mercenaries he conquered Armenia and the Caucasus and entered the Crimea of southern Russia, controlling the Black Sea on all sides except the southwest. He then invaded Bithynia, arousing fears for the Bosphorus Straits in the minds of the Roman military. So the latter ordered Mithridates out of Bithynia, setting the stage for actual war in the next century. The Galatians continued to oppose Pergamum, sometimes allying themselves with Bithynia, but they received a crushing defeat by Eumenes II in 166 B.C., and had great difficulty holding Pontus off their territory. When the Pergamum King Attalus died in 133 B.C. he left his kingdom to Rome. It was at this period that Hipparchus of Nicaea elaborated the scheme of spheres and epicycles that became the classical construction of the universe. (Ref. 5, 6)

NOTE: Insert Map: 26: ASIA MINOR IN 189 B.C

ARMENIA

We noted at the close of the last century that Armenia was conquered by Antiochus III and divided into two satrapies. The western one, Armenia Minor, was given to Zadriades and the eastern one, Armenia Major, to Artaxis. After Antiochus' defeat at Magnesia in 190 B.C. the two governors made themselves independent rulers, founding two separate dynasties. At the end of the century the area was temporarily overrun by Mithridates VI, the ambitious king of Pontus. (Ref. 7)

1

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

2

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History.

(Fletcher & Son Ltd., Norwich, England 1967).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[91] HERM, GERHARD, The Celts. (English Translation by Weidenfeld and Nicholson Ltd.), (St. Martin's Press, New York 1976).

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[119] LANGER, WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952.

The Near East: 100 B.C. to 0

THE NEAR EAST

ARABIA AND JORDAN

During the Hellenistic era the Himyarites of southern Arabia had lost their chief source of prosperity when part of the Indian trade was diverted through Egypt, but in 24 B.C., they were still strong enough to defeat the Roman General Gallus, who had been sent to conquer them and the invaders were driven into the desert where many died from heat and thirst. The Nabataean kingdom, in present day southern Jordan, became powerful at this time, with a capital at Petra. Amman, in northern Jordan, was first destroyed and conquered and then rebuilt by the Romans. (Ref. [1](#))

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

By 78 B.C. in Judea the Hasmoneans had enlarged their realm so that their territory was as extensive as it had been under Solomon, but the rulers began to lose their religiosity and yielded to Hellenizing elements. Toynbee (Ref. [2](#)) says that the Jews' Canaanite culture was not a backward one and was probably equal to the Hellenic in achievement, but it was different in ethos and the Hellenic was the more potent and soon dominated.

In 63 B.C., however, Judea was conquered by Pompey for Rome. As he laid siege to Jerusalem, the Jewish King Aristobulus took refuge in the walled precincts of the Temple and held out for three months. When the ramparts finally fell 12,000 Jews were slaughtered, with some leaping to death from the walls. None surrendered. Pompey left the Temple untouched but exacted 10,000 talents (\$3,600,000) from the nation and transferred all Hasmonean

cities to the Roman power. Hyrcanus II was made high priest and nominal ruler of Judea, but as the ward of Anatipater the Idumean, who had helped Rome. The independent monarchy was ended and Judea became part of the Roman province of Syria. Herod the Great became subject king in 37 B.C. and using Roman funds, financed a local army to drive the invading Parthians back out of this territory. Herod was also an Idumean and not a Jew either by origin or conviction¹. (Ref. [3](#)) He, like other rulers of his time, had loose morals, ten wives, nine at one time, meted out cruel punishments and had an Hellenic leaning. The Pharisees² were against Herod and by the time he died in 4 B.C. he was hated by all the people. His realm was divided among his three sons. On our present calendar Jesus appears to have been born between 7 and 4 B.C. (Ref. [4](#))

There were about 2,500,000 people in Palestine in this era and most of them spoke Aramic, although the priests and scholars knew Hebrew and the officials and foreigners used Greek. There was constant strife between the Jews in the interior of Palestine and Gentiles on the coast, and there was strife within the Great Council of the Elders of Israel who ruled over the people for religious offenses. The higher priests and Sadducees were a conservative element holding for the written law of the Hebrews (Torah) and the Pharisees and Scribes³ were a liberal element voting to accept oral traditions as well as the Torah. The Psalms of Solomon and the Book of Joshua (Ecclesiasticus) were written in this century, although the latter is not accepted by the Jews. (Ref. [6](#))

IRAQ AND SYRIA

During this century Syria and Iraq became primarily a battle ground between the two formidable forces of the Romans in the west and the Parthians in the east. Although Antiochus VIII and IX and Seleucus VI each reigned briefly, in 83 B.C. the shrunken Seleucid Kingdom was taken over by Armenia and twenty years later it became a Roman province. (Ref. [7](#)) (Please see map in the ITALY section, this chapter). At the ancient Mesopotamian city of Carrhae, just north of the upper Euphrates, the Roman General Crassus met the Parthians and was defeated and killed by the Shaka bowmen of the Parthians' Suren ally. (Ref. [8](#), [9](#))

IRAN (PERSIA)

The Parthians were in control of Iran and were pretty well able to contain the Romans in Syria on their western flank, but they were now having additional troubles on their northern and eastern borders. In 88 B.C. Tigranes II of Armenia invaded Parthia, overrunning four vassal states, reducing the size of Parthian controlled territory. (Ref. 10) In addition the Yue-chi and the neighboring Iranian Shaka had already taken Bactria and were starting to move into the Middle East, attacking eastern Iran. To hold off these attacks the Parthians used very large, heavily armored horses and men in cavalry units called "cataphracts", against the invaders' light, nomad, bow cavalry.

ASIA MINOR: ANATOLIA

TURKEY

We noted in the last chapter that King Mithridates IV of Pontus had launched an imperialistic campaign which had brought him into contact with the displeased Romans.

The First Mithridatic War broke out in 88 B.C. and Mithridates surged out of Asia Minor to take the Cyclades, Thessaly, Macedonia and Thrace before he was stopped down in Greece, proper, by the Roman Sulla. The king was given a lenient peace and returned to Pontus to raise another army and fleet. The Roman legate in Asia, Murena, realizing that the king was rearming, attacked Pontus in the Second Mithridatic War between 83 and 81 B.C., but was defeated. The Romans returned to the attack in the Third Mithridatic War of 75 to 63 B.C. and this time all Asia Minor became Roman. Wells (Ref. 11) states that

100,000 Roman Italians were massacred during this war. The Roman conquest was complete when King Nicomedes III gave his country of Bithynia to Rome in 75 B.C. About 350 miles south of present day Ankara was the small country of Commagene, ruled by Ceniochus I, who claimed descent from both Greek and Persian kings. He had colossal statues made, including one of himself, and some of these thirty foot high constructions have survived earthquakes, storms and wars, remaining erect at the present time. (Ref. 12, 13)

ARMENIA

Tigranes the Great, actually a son-in-law of Mithridates, united Armenia once again in 95 B.C. and added territory from Syria and Cappadocia, making Armenia the most powerful nation in western Asia. By 70 B.C. his empire extended from the Ararat Valley to the Phoenician city of Tyre on the Mediterranean coast, much of this territory having been taken from the Parthians. By 66 B.C., however, Tigranes had fallen into the hands of Pompey as the latter was driving Mithridates of Pontus to the eastern edge of the Black Sea. Thereafter the Armenian king ruled merely as a vassal of Rome. (Ref. 14) By the end of the century when emissaries of the Han Dynasty of China reached the eastern shores of the Caspian Sea, they found only stories of a civilization that had receded. The memory of Alexander remained, but of Rome men knew only that Pompey had come to the western shore of the Caspian and then gone away and that Crassus had been destroyed.

1

[176] READERS DIGEST, *The World's Last Mysteries*. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

2

[221] TOYNBEE, ARNOLD J., *Change and Habit*. (Oxford University Press, New York & London, 1966).

3

[48] DURANT, WILL, *Ibid.*, Part III - Caesar and Christ. (1944).

4

[222] TRAGER, JAMES, *The Peoples Chronology*. (Holt, Rinehart & Winston, New York, 1979).

5

[222] TRAGER, JAMES, *The Peoples Chronology*. (Holt, Rinehart & Winston, New York, 1979).

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[48] DURANT, WILL, *Ibid.*, Part III - Caesar and Christ. (1944).

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[222] TRAGER, JAMES, *The Peoples Chronology*. (Holt, Rinehart & Winston, New York, 1979).

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[28] CHEILIK, MICHAEL, *Ancient History*. (Barnes & Noble Books of Harper & Row New York et al, 1969).

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[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World*

History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

11

[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

12

[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

13

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

14

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

1. Trager (Ref. 5) claims that on the contrary Herod converted to Judaism in his youth and at the time of his death was rebuilding the great Temple at Jerusalem. He does not give the source of this information
2. The Pharisees were a group of Jewish Elders
3. The Scribes were scholars of the Law

The Near East: 0 to A.D. 100

THE NEAR EAST

ARABIA AND JORDAN

As direct voyages across the full width of the Arabian Sea had become routine, trade across the peninsula increased, linking Alexandria with India. The Himyarite Arabs absorbed Oataban about A.D. 50 and the Hadramaut about A.D. 100, while farther north the Nabatean Empire was conquered by Rome. Across the gulf from Ethiopia the Kingdom of Axum developed as a part of its Ethiopian counterpart, but on Arabic soil. At the end of the century Christianity gradually filtered into the peninsula. (Ref. 1)

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

Rome formally annexed Palestine in A.D. 6 and in A.D. 44 Judea was finally placed under direct rule of Roman procurators. The early century is the period of Jesus' teaching of universal love and forgiveness, but in general the Jews were not won over. The first of the Romano-Jewish Wars occurred in the last third of the century (A.D. 66) when the Jews, under John of Giscala, revolted against Roman misrule. It ended in a great battle (A.D. 70) with 600,000 to 1,000,000 Jews killed, their temple destroyed and the survivors forced to undergo another "dispersion". When the new Christians had failed to support this Jewish uprising, anti-Christian riots also broke out. After the Roman victory, the Sadducees disappeared entirely and the Pharisees, previously a sort of priest-elder group, now became the Rabbis, or teachers of the people. Overall at that time there were in the Roman population Jews in the ratio of 7%, a number twice that of the Jews in the United States in the Mid-

twentieth century. (Ref. 2, 3)

IRAQ AND SYRIA

This century was one of relative stability along the frontier dividing the Parthian and Roman Empires. Syria (although perhaps it was Egypt) was probably the site of the invention of a technique of glass blowing so that soon glass utensils were in general use all over the Mediterranean. Christianity came to Malula in the mountains just north of Damascus and still today some 1,500 Christians live there, speaking Western Aramic, the language of Jesus. Adjacent caves may have been used in this first century as places of refuge. (Ref. 4, 5)

IRAN: PERSIA

Persia was the hub of the Parthian Empire. The people spoke Pahlavi and wrote in Aramic on parchment, but unfortunately not a line of the Parthian literature has been preserved. They were either too rich or too poor to indulge in literature, but they did excel in self-adornment, with both sexes curling their hair and enjoying elaborate clothing. They hunted, ate and drank abundantly, were brave warriors and usually honorable foes. Polygamy was practiced and women were veiled and secluded, with divorce easy for either sex. They were perhaps less civilized than the Achaemenid Persians but more honorable gentlemen than the Romans. They were tolerant of religions while they worshipped the sun and the moon and preferred the God Mithras to Ahura Mazda, much as later Christians preferred Christ to Yahveh. The Arsacid Dynasty ruled from just before the beginning of this century for two hundred years. (Ref. 6)

ASIA MINOR

Most of Asia Minor was firmly under Roman rule with Commagene falling to them by A.D. 17. Armenia was divided and actually was another frontier between the Romans and the Parthians while the cultural orientation of that country was definitely toward Persia and Parthia. In the middle of the century, in Nero's reign in Rome, his legions had a ten year war with Parthia over Armenia. This ended

in A.D. 63 with a scion of the Parthian royal house recognized as king of Armenia, although under Roman suzerainty. Seven years later Vespasian moved some eastern troops from Syria to forts on the upper Euphrates to consolidate the eastern frontier against Armenia and Parthia, thus paving the way for later expansion by Trajan. (Ref. 7, 8)

1

[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

3

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

The Near East: A.D. 101 to 200

THE NEAR EAST

The increasing land and sea trade between the Mediterranean, India and China increased chances of unfamiliar infections spreading to susceptible populations and severe epidemics are known to have hit the Mediterranean populations and probably China too in this century. (Ref. [1](#))

ARABIA AND JORDAN

The trade routes across the Arabian peninsula were very active at this time. The citizens of Palmyra owned and escorted caravans between the Roman Empire (controlling Jordan and some of northern Arabia) and the Persian Gulf ports of Charax and Apologos, thus accumulating great wealth which permitted the financing of spectacular public buildings. Petra performed the same functions farther south between the Persian Gulf and the Red Sea ports. (Ref. [2](#))

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

The industry and trade of Judea and the area of Lebanon were intimately connected with the whole of Syria and Iraq. Although the entire region remained under Roman control, the basic people of these lands remained Jewish and Phoenician in derivation, as always. The dye industry, inherited from old Phoenicia continued to function along with schools of medicine and law at Beirut. The upper classes were of Hellenic culture and the Greek language was used in literature and government, while the lower classes remained

oriental and spoke Aramaic.

In A.D. 132 under the leadership of Simeon Bar Cocheba, who claimed to be the Messiah, the Jews made their last effort in antiquity to recover their freedom and their homeland. In the last of the Romano-Jewish Wars they fought desperately for three years against the Roman legions. One-half million men were killed and more starved. After the Jewish defeat, Hadrian forbade any Jewish ritual and the vanquished were shut out of their Holy City and scattered again.

In the next four centuries there were written two Talmuds, one from Jerusalem and a much longer Babylonian version containing a rich collection of medical lore among the other authoritative Jewish traditions. Some of the medical material came from Alexandria where Jews had flocked in the 4th century B.C. Although dead bodies were avoided as unclean, Rabbi Ishmael is said to have boiled and then studied the body of a prostitute. In surgery the Talmud discusses means of reducing dislocations and performing certain other operations. (Ref. 3, 4)

IRAQ AND SYRIA

At the beginning of this century there were ten million people living in Greater Syria, which probably encompassed modern Lebanon and Iraq, and there was great prosperity due to the dye and glass industries. Today there are only three million people living in the same area, most finding only a precarious existence. In A.D. 114 the Emperor Trajan exploited a moment of Parthian weakness and advanced down the Tigres and Euphrates rivers to the Persian Gulf, thus putting the rule of Rome over this entire ancient land. In the Hadrian Principate to follow, however, (A.D. 117 - 138), the Roman troops were withdrawn to the Euphrates which then became the eastern boundary of the empire. In the area between the Red and the Black Seas, a hundred cities flourished in this era of relative Roman peace. The political and military reverses of the Jews in Judea in no way affected the large number of them living in Babylonia and elsewhere in the empire. (Ref. 5)

IRAN

Emperor Trajan also invaded part of Iran and between A.D. 115 and

117 all of Media and part of Parthia, itself, belonged to Rome, but as noted in the paragraph above, Hadrian withdrew all troops to the Euphrates, freeing the main areas of Persia and the Parthian Empire remained pretty well intact. Late in the century Roman generals again attempted to invade this region (165 and 198) but with no lasting effect. (Ref. 6)

ASIA MINOR: ANATOLIA

TURKEY

Even under the years of Roman rule, the Ionian Greek culture still flourished along the coast of Asia Minor. Soranus of Ephesus wrote a treatise on diseases of women, birth and care of children (A.D. 116), a work which marks him as a great gynecologist. Only Hippocrates and Galen rank above him in the medicine of ancient times.

ARMENIA

Armenia was a site of almost constant warfare. Just before the beginning of this century that country and Parthia were allied, but when the Parthian King Chosroes set up a puppet governor in Armenia, Trajan declared war, claiming a treaty violation. In 114, on the death of the Parthian puppet, Trajan annexed the country. After his death, however, Hadrian withdrew the troops to a less advanced position and Armenia was again left alone until Marcus sent General Verus back to the area in 162. Verus cruised through Syria and up to Armenia, where he put a Roman puppet on the throne. The Armenians may have gotten their revenge, however, because upon Verus' return to the West, his troops brought with them a terrible plague which seriously depopulated the empire in A.D. 166 and 167. (Ref. 7)

1

[140] MCNEILL, WILLIAM H., *Plagues and Peoples*. (Anchor Press/Doubleday, Garden City, New York 1977).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[125] LYONS, ALBERT S., M.D. AND PETRUCELLI, R. JOSEPH, M.D.,
Medicine - An Illustrated History. (Harry N. Abrams, Inc. New York
1978).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World
History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World
History, (Hammond, Inc., Maplewood, New Jersey, 1978).

7

[119] LANGER, WM. L. (Editor), Encyclopedia of World History.
(Houghton Mifflin Co., Boston, 1952).

The Near East: A.D. 201 to 300

THE NEAR EAST

ARABIA AND JORDAN

Jordan belonged to the Romans, but most of Arabia was untouched by the Roman armies. In the south of the peninsula the cities began to decline and the nomads again assumed rule. By the end of the century the Aksumite kings of Ethiopia were in control of Yemen and the Sassanian King Shapur annexed Oman on the Arabian Gulf shore about A.D. 260. (Ref. [1](#))

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

Lebanon was a part of Roman controlled Syria and even Judea was non-existent as a separate Jewish state. The common people of most of these areas tended to remain unchanged, century after century, however, and basically only the governments shifted.

At the beginning of the century the Rabbi Judah codified Jewish law, both civil and religious, in a work called the "Mishnah" which became the basis of continuous study in the Middle East and was later preserved in the Talmud. (Ref. [2](#))

IRAQ AND SYRIA

As the century opened this entire area was dominated by Rome but in the old area of Mesopotamia in western Iraq the Persian King Ardashir invaded about A.D. 230, but shortly withdrew again. This was followed in A.D. 260 by Shapur I with clouds of cavalry that raided throughout all of Syria and returned to Persia laden with spoils and the

Roman Emperor Valerian. who was captured at Edessa, where Syria joins Asia Minor. It was only after this that Odenathus of the Septimii tribe, governor of Palmyra in Syria, crowned himself a puppet king under the Romans and promptly drove the Persians back across Mesopotamia, defeating them finally at Ctesiphon, the ancient Persian capital near present Baghdad. He then declared himself king not only of Syria but of Cilicia, Arabia, Cappadocia and Armenia. After his assassination in A.D. 266 his son took his title, but his widow, Zenobia, took his power. She beautified the capital and brought scholars and artists to her court, but also found time to lead an army into Asia Minor, conquering Cappadocia, Galatia and most of Bithynia. Then, with a great fleet and army she conquered Egypt. The Roman Emperor Domitius Aurelianus soon reconquered this land, however, and then his armies proceeded to beat Palmyra from a great central Syrian city of 30,000 people to a desert village as it had been before and remains yet today. (Ref. 3, 4)

IRAN

Persian cities sat on the silk route from China to the Roman Empire and regardless of the local administration and any hostilities, the Persians controlled this traffic. Rayy (near modern Tehran) as well as Herat (now over the border in Afghanistan) became major cities and enjoyed great prosperity. In about A.D. 224, Ardashir I, originally a feudal lord of Persia, overcame the weakened Parthian Arsacid Dynasty and became king of all the Persians, founding the Sassanian or Sassanid Dynasty. This family strongly identified with the old Achaemenian Empire and Zoroastrianism was restored as the state religion. New conquests were undertaken as Ardashir invaded Syria although his main purpose was to dethrone and kill the Arsacid king who was ruling Armenia. Ardashir 's successor, Shapur I, (240-271) built a new city in his home province of Fars, the Sassanian "Versailles", and he also promoted agriculture and several irrigation systems. As mentioned above, however, he is most famous for his extensive cavalry raids throughout Syria and his capture of the Roman Emperor Valerian at Edessa. Thousands were killed in Antioch and Tarsus was about destroyed. Victory may have resulted as the result of the Persian cavalry's use of damask steel sabres, superior to anything made in the West. (See SUBCONTINENT OF INDIA, this chapter). Shapur eventually went

down to defeat at the hands of Odenathus, an Arab prince from Palmyra, whose troops chased the Persians back and defeated them at Ctesiphon, as we have noted. (Ref. [5](#), [6](#))

In A.D. 242 Mani began his religious teachings, taking Zorasterism as a base but accepting Moses, Jesus and Buddha as prophets. He traveled to Turkistan, India and China and his ideas spread widely, becoming a fruitful root-stock of Christian heresies for almost a thousand years. (Ref. [7](#)) At first Shapur favored Mani, but later he was banished and when Shapur's second son, Varahran I became king in 272 Mani was executed. (Ref. [8](#))

ASIA MINOR: ANATOLIA

TURKEY

The entire Anatolian peninsula was part of the Roman Empire, but this was an era of multiple raids from both north and south, with the Goths and other Russian tribes coming down to ravage the cities of the Black Sea such as Pontus, Chalcedon, Nicomedia, etc., while the Persians later overran Cilicia and Cappadocia. It was in Edessa, then part of Syria, but near the modern city of Urfa, Turkey that the Persian king Shapur captured Valerian. This was somewhat nullified as the Queen Mother Zenobia temporarily took over additional territory in this region. By the end of the century Roman rule had been pretty well restored and the Emperor Diocletian established his capital for the entire empire at Nicomedia. Greek was written and spoken in this eastern Roman capital except for purely administrative and occasional literary purposes. The great plague which reached most of the empire in the middle of the century struck Pontus particularly violently. (Ref. [9](#), [10](#), [11](#))

ARMENIA

The puppet king, Chosroes, was of the Iranian Arsacid line, and as noted above, he was murdered by the Persian Ardashir I and Armenia came under the Persian wing. In A.D. 284, after Queen Zenobia had finally been defeated, Emperor Diocletian helped Tiridates, the son of Chosroes, to again ascend the throne of this country.

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[18] BRITISH MUSEUM, (Personal notes, 1978).

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[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

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[119] LANGER, WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952).

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[136] MCEVEDY, COLIN, The Penguin Atlas of Ancient History. (Fletcher & Son Ltd., Norwich, England 1967).

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[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

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The Near East: A.D. 301 to 400

THE NEAR EAST

ARABIA AND JORDAN

The Abyssinians had conquered the southern angle of the peninsula by 362 and there were still some fairly prosperous towns along the Red Sea. In the north there was an increasing level of civilization with more and more contact with Syria, while in the desert the nomad tribes gradually encroached on the towns. (Ref. 1)

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON & IRAQ AND SYRIA

The eastern portion of Syria, comprising essentially present day Iraq and ancient Mesopotamia was under the domination and actually a part of the new Persian Empire. The western part of Syria, including the areas of Lebanon and Judea, were part of Byzantium, the eastern realm of the fading Roman Empire. Monophysite Christianity, which began a period of extreme ascetism among many monks of the East, became widely accepted in Syria and particularly in the Lebanon region. Judging from the irrigation systems, the population of Mesopotamia may well have reached its peak at this time, while epidemics and other problems were cutting the Italian Roman population (Ref. 2) The Bible and various theological works were translated into Syriac and then a copious original literature was developed. In central Syria, since the cities of Palmyra and Hatra had been destroyed in the previous century, the silk route now went farther north from Antioch on the coast through northern Syria to Seleucia, an ancient city now gone, which was located near present day Baghdad. (Ref. 3, 4)

IRAN: PERSIA

In the first decade of this century Persia was invaded by Arabs from Mesopotamia and Bahrain and Ctesiphon was sacked. At 17 years of age Shapur II became emperor and he immediately invaded Arabia and exacted a terrible revenge upon the Arabs. Then between 337 and 376 he engaged in three wars with Rome, with neither side gaining any great advantage. When Shapur II died in 379 the Persian Empire was at its peak, controlling all territory that Darius I had ruled a thousand years before. Zoroastrianism, tied up with the political destiny of the empire, was winning against both Judaism and Hellenization.

Iranian society in this Sassanian period consisted essentially of three classes:

1. **WARRIORS.** The land owners, great and small, furnished the heavy cavalry and the mounted archers who were the effective strength of the army. The infantry consisted of their vassals and serfs. At the top of this class were seven great families dating back to the Achaemenid times and holding hereditary rights to various offices. The king was a member of one of these great families and the internal history of Iran continued to be one of nobles jockeying for power.
2. **PRIESTS: MAGI.** The Avesta, written sometime during Sassanian domination, ordered every aspect of life in Persia. The Magi had great authority, including some judicial function. They owned large estates and had considerable political influence when Mazdaism finally became the dominant religion in the next century.
3. **PEASANTS AND CRAFTSMEN.** This was the most numerous group but it had no power and no chance to rise in rank. The great majority were peasants, almost at the level of serfdom.

In the ruling class there was much family intermarriage, father-daughter and brother- sister marriages being common. After Shapur II, there began a decline in royal power and many dynastic disputes, raging over 1 1/2 centuries. In addition there were frequent wars with the Byzantine branch of the remains of the Roman Empire and in 395 large hordes of Huns crossed the Don, then the Caucasus and entered Persia, driven perhaps by famine. They took thousands of prisoners for later sale as slaves and drove off many herds of cattle.

One group crossed the Euphrates and were beaten back by Romans, another retreated from Ctesiphon as the Persian army approached and a third group ravaged Asia Minor and Syria. (Ref. [5](#), [6](#), [7](#))

ASIA MINOR: ANATOLIA

In this and the next century it is of value to the reader to study the sections on ASIA MINOR, THE BALKANS, AUSTRIA, HUNGARY AND ITALY all together, as the interactions between these areas is almost continuous.

Our paragraph about Byzantium in the last chapter closed with the ascension of Diocletian to the throne of the eastern portion of the Roman Empire, as he gave Maximian control of the western portion. Both of these men abdicated in A.D. 305. The Roman political and military scenes become very complicated from this point on, with the two halves of the empire ruled sometimes by one man, but at other times two or four shared the power as co-emperors, west and east. The designation of various generals as Caesars and prefectures does not help in the clarification. We shall try to give only the salient points, and avoid getting bogged down in minute details. Constantius and Galerius succeeded Diocletian and Maximian, but Constantius died a year later and his son, Constantine, was proclaimed emperor by his troops, while just shortly thereafter Maxentius, son of Maximian, seized power in Italy. Constantine overthrew Maxentius just outside Rome in 312, making himself master of the West and eleven years later he took over the East, also. Thus, by 323 he had become the sole emperor and his inauguration was given in Constantinople in 330 after he had spent four years constructing it on the site of ancient Byzantium. Known subsequently as Constantine the Great this man in the meantime waged war all across southern Europe, in Greece and the East and since many of his soldiers were already Christians, he used their crosses as his battle ensignia. Finally he became an avowed Christian although he attended no rituals and it is possible that his conversion was more of a political maneuver than a spiritual one. Its effects were nevertheless far reaching and promoted the spread and organization of the Church throughout the Roman domain. (Ref. [8](#), [9](#), [10](#), [11](#))

Constantine gave the Church vast estates and buildings, empowered bishops to make slaves of Roman citizens and permitted civil suits to be transferred to bishops' courts if either party so desired. (Ref. [12](#))

Besides being constantly at war with Persia under Shapur II, Constantine I had to put up with bitter battles which developed over creeds in his newly recognized Christian hierarchy. He attempted to resolve these differences by calling a council of Nicaea which proceeded to establish the orthodox creed that in essence said that the Lord Jesus Christ, the Son of God, begotten not made, being of one essence with the Father, was made flesh for the salvation of men. Of some 318 bishops present, only two plus the unrepentant Arius, refused to sign the formula. These were exiled and an imperial edict ordered that all books by Arius should be burned. All Christians were agreed that pagan temples must be closed but Arianism remained in Asia Minor and throughout the Near East and "paganism" in the form of Mithraism, Neoplatonism, Stoicism and Cynicism was widespread. Constantine also had serious financial troubles so that he had to confiscate properties of cities and temples and finally impoverished the middle class and the peasants by tremendous taxation and land transfers. By A.D. 350, some years after his death, there were 80,000 people getting free bread in Constantinople. (Ref. 13)

After a few murders of other claimants to the throne, Constantine's son, Constantius II, became emperor in 337 but he ruled for only nine years and accomplished nothing except to choose as Caesar (a top general) the half-brother of Gallus, Flavius Claudius Iulianus, soon to be known as Julian. He was given command against the Alamanni and the Franks, but after five years he apparently sought greater things and marched against Constantius. The latter died before Julian reached him so he became emperor in 361 without further difficulty. Known as Julianus, the Apostate, he reversed the trend to Christianity, upholding paganism while attempting to make Mithraism the supreme religion. He was a learned man who devoted much time to books and the study of philosophies, while allowing full freedom to Christians. At his death in 364 while fighting with his armies in Persia, Hellenism and its philosophies disappeared for 11 centuries. After some further juggling of east and west emperors elected by their troops, Valentinianus I became emperor in the west in 364 and he named his brother Valens as co-Augustus in the east. He had his hands full battling Visigoths who won independence north of the Danube. All of the emperors' most dangerous enemy, however, still remained the Sassanid Dynasty of Persia, and this squeezing effect

with the Goths in the north and the Persians in the south resulted in Byzantium giving up part of Armenia and Georgia in the Caucasus to Persia. Finally in 378 the Visigoths crossed the Danube 80,000 strong, engaged the eastern co-Augustus, Valens, in a great battle at Adrianople and the latter was killed. Gratianus appointed Theodosius, a strong Christian and son of a successful general in Britain, to succeed him as co-emperor of the East. He immediately banned the practice of all current religions except Christianity (although it was still in a minority at the time) and handed over all Christian churches to the Trinitarians (Athanasiasts), being greatly influenced by St. Ambrose of Milan. When Theodosius massacred 7,000 people at Thessalonica in Greece in revenge for an insurrection, however, Bishop Ambrose forced him to do penance, thereby emphasizing the independence of the western church from imperial domination. When the Frank Count Arbogast murdered the western emperor, Valentinian II, and set up the pagan Eugenius as Roman Emperor in 392, Theodosius, with Gothic auxiliaries, led by Alaric, defeated and killed both Arbogast and Eugenius at Frigidus in northeastern Italy. Theodosius died soon after this victory and he was the last emperor serving jointly with a western counterpart.

Following the death of Theodocius in 396 the eastern and western emperors were completely separate and served only in their own regions. The East benefited from this split, retaining the taxes and tribute that had previously been remitted to Rome. Egyptian wheat was rerouted to Constantinople and the new capital, which incorporated the city of Byzantium, soon grew to metropolitan size. Theodocius' son, Arcadius, governed the East under the prefect Rufina, but on their return from Italy Theodocius' eastern army assassinated Rufinus and effective rule fell to the eunuch, Eutropius, who in turn was murdered in 399 in part by a conspiracy of Goths in Phrygia. H.G. Wells (Ref. 14, page 414) wrote that this new Byzantium was a damaged resumption of the Hellenic Empire of Alexander, although the monarch had a Roman title. (Ref. 15, 16, 17, 18, 19)

At the base of the Anatolian peninsula, Armenia, under Terdat, a pro-Roman ruler, became the first entirely Christian state as it adopted the Monophysite variation in A. D. 303. Chosrov II reigned from 330 to 338 but by a treaty of 386 following one of the innumerable Roman-Persian wars, Armenia was divided between Byzantium and Persia, the latter getting the larger share. The

Armenian alphabet was introduced by St. Mesrop about A.D. 400, such alphabet containing 38 letters and designed to handle the Armenian variation of the Indo-European language. (Ref. 20)

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

2

[140] MCNEILL, WILLIAM H., Plagues and Peoples. (Anchor Press/Doubleday, Garden City, New York 1977).

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[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

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[119] LANGER, WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952).

6

[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

7

[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

8

[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

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[48] DURANT, WILL, Ibid., Part III - Caesar and Christ. (1944).

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[221] TOYNBEE, ARNOLD J., Change and Habit. (Oxford University Press, New York & London, 1966).

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[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

The Near East: A.D. 401 to 500

THE NEAR EAST

ARABIA AND JORDAN

Arabia was primarily a Bedouin land, with social organization pivoting around the tribe. Both Byzantine and Persia tried to protect themselves by supporting new buffer Arab border states and through these buffer zones, foreign customs and ideas filtered into the world of the nomads. Far south Arabia remained a civilized, Christian community with close ties to Ethiopia. In North Yemen repairs were attempted on an old earthen dam stretching some two thousand feet across the Wadi Dhana, using 20,000 men, 14,600 camels and 12,000 donkey teams. The dam diverted flood waters to irrigate about 4,000 acres of land but it lasted for only about a century. (Ref. [1](#))

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON & IRAQ AND SYRIA

This region continued as part of the Byzantine Empire. Monophysitism dominated in western Syria while Nestorians were prominent in the east until expelled in the later part of this century.

IRAN: PERSIA

The Sassanid Empire continued to flourish and after a treaty with Byzantium there was relative peace and tolerance of Christians. The Nestorians were particularly prevalent in Iran in the latter part of the century after they had been run out of the Byzantine area, proper, and later out of Syria. The city of Bander Shahpur on the

Persian Gulf was the site of a great hospital and translation center of Greek texts to Arabic. The Nestorians were active in these translations and in founding the hospital. Particularly famous was Jurgis Bukht-Yishu, first of six generations of translators.

The century began with Zoroastrianism continuing as the major religion with taints of Hellenism still remaining, but now appeared Mazdak, a new preacher, reviving a kind of Manichean doctrine, which was translated into a kind of communism. It caused much political trouble for Kavadh I, who originally had supported the doctrine. This king married a Hephthalite (also spelled Ephthalite and sometimes called "White Hun", probably erroneously¹ princess of the tribe that had taken over the old Kushan territory and who were beginning to absorb much land from Persia. These people, as well as Chionite nomads were threatening from the north most of this century. One of the most famous of the Sassanian kings was Vahram V (also Varahran), surnamed Gor, great hunter, poet and musician, who left the administration of the country to his chief magus, Mihr Shapur (A.D. 420-440).

In A.D. 484 the Persian army was finally annihilated and their king killed by the Hephthalites. During their period of control of Persia in the remainder of the century an exiled Persian, Kobad, who had been living among the invaders, took the throne, only to be driven off again by his own nobles in 489, perhaps because he supported the priest Mazdak's theories. (Ref. 4, 5, 67)

ASIA MINOR: ANATOLIA

TURKEY (BYZANTIUM)

As in the previous chapter, the reader is advised to study the sections on THE BALKANS, CENTRAL EUROPE and ITALY along with this section. For the two centuries just preceding, the Byzantine monarchy had kept up Roman institutions and had continued to use Latin in its courts, but in this century the central administration stopped the use of Latin in favor of Greek. Little was accomplished from the political and social standpoint during the entire century. For the sake of completeness only, the rulers of Byzantium are listed as follows:

The Dynasty of Theodosius

The Dynasty of Leo

395 - 408 Arcadius
408 - 450 Theodosius II
450 - 457 Marcian

457 - 474 Leo I
474 - Leo II
475 - 491 Zeno
491 - 518 Anastasius

Table 1

As this century began Goths, under a former Roman army general, Gainas, occupied Constantinople. They were soon eliminated, however, by mobs and the imperial army and thereafter Goths were not allowed to serve in the imperial forces as units, but only as individuals. When Theodosius II began to rule he was young and weak and the empire was actually controlled by his Empress Eudoxia. The reign was a tranquil period, however, and even the wars with Persia ceased. An official collection of imperial legislation was published as the Codes Theodosianus. The great issue of the administration was Nestorianism versus Monophysitism. In 428 Theodosius made Nestorius the patriarch of Constantinople and the latter then startled the Christian world by preaching that Mary was not to be considered the Mother of God, but only Mary, mother of the human Christ, and thus another heresy was started. At the third Ecumenical Council of Ephesus of 431 Monophysitism triumphed and Nestorius was excommunicated and banished to the Libyan desert where he subsequently died. His followers established the Nestorian Church and fled to eastern Syria and later to Persia, eventually founding communities in Balkh and Samarkand, in India and even China. Scattered through Asia a few survive to this day, still denouncing Mariolatry. (Ref. [8](#), [9](#), [10](#))

The one thorn of Theodosius' otherwise peaceful reign was the invasion of the Balkans by Asiatic Huns which had begun in the winter of A.D. 404-405 under the leadership of Uldin. By 408 they were terrifying the Balkan population. When many of the Huns defected to the Byzantine troops in the area, however, Uldin retreated for the moment. Periodic invasions of Thrace recurred, however, through the fourth decade of this century, requiring large tribute payments from the Byzantine government. There were still more an attack in 441 and 442 and the eastern Roman army, under a Goth General Aspar, was beaten time and again. The Huns broke off the engagement only after arrangements for large tribute payments by Theodosius. After the Huns retreat Theodosius stopped the agreed upon payments, probably not because of a lack of funds.

It has been estimated that the average yearly revenue of the Eastern Empire at that time was about 170,000 pounds of gold, with only 45,000 pounds of this spent on the army. At any rate, because of the lack of payment the greatest Hun invasion of all in Thrace was launched in 447 with Attila at its head. Theodosius begged for terms and Attila got 6,000 pounds of gold due as back payment as well as a promise of 2,100 pounds annually in the future. At today's value, this would be in the neighborhood of \$29,000,000 and over \$10,000,000 respectively. In addition, there was to be a "demilitarized zone" from Pannonia to Sistova (north Bulgaria). (Ref. 11)

The fourth Ecumenical Council met at Chalcedon in 451 under Theodosius' successor, Marcian, and this time Monophysitism was condemned as well as Nestorianism, setting the stage for continued religious controversy for another two centuries. On Marcian's death, the barbarian General Aspar was influential in getting a military tribune, Leo I, as emperor. He, too, had Hun trouble as Attila's son, Dengizic, led an invasion into Thrace again. This time, however, many of the Huns did not join him and in 469 the eastern army defeated him, killed him and took his head to Constantinople. This was the last organized Hun expedition but many of those men subsequently joined the eastern army forces where they became known as "Massagetae". (Ref. 12)

When Zeno became emperor in 474 he followed policies which increased the schism between the eastern and western domains of the old Roman Empire and the western position completely collapsed in 476.

ARMENIA

The Monophysite Christians of Armenia now formed their own church, independent of Constantinople, and called it simply the Armenian Church. Whereas they had formerly used the Greek language, they now got a national alphabet and had the Bible translated into Armenian. This country had a fully developed feudal system from royal families down to peasants, but at this time the nation was nominally subservient to Persia. The people revolted against Persia when heavy taxes were levied and there were some religious persecutions, but the revolt was not successful. In 455 and 456 the Persians forcibly converted Armenia to Zoroasterism but

near the end of the century the Armenian leader, Vahan, helped the Persian King Volagases in a civil war and in an Edict of Toleration, the Christians were again granted freedom.

1

[82] GROVE, NOEL, "North Yemen", National Geographic 156: 244, Aug. 1979.

2

[38] COLUMBIA ENCYCLOPEDIA, 3rd Edition. (Columbia University Press, New York and London, 1963).

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[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

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[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[49] DURANT, WILL, Ibid., Part IV - The Age of Faith. (1950).

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[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

12

[127] MAENCHEN-HELFEN, OTTO J., The World of the Huns. (Edited by Max Knight and background by Paul Alexander), University of California Press, Berkeley 1973).

1. The origin and ethnic affinities of these people is unknown but they probably have no relationship to the "Attilic" Huns which will be described later in this chapter. The Ephthalites may have been of Tibetan or Turkish origin. (Ref. [2](#), [3](#))

The Near East: A.D. 501 to 600

THE NEAR EAST

ARABIA AND JORDAN

By 525 Judaism had gained such a foothold in the Himyarite kingdom in the south that the rulers themselves began to persecute the Christian population. This was the justification which the Abyssinians (Ethiopians) used to invade south Arabia between 525 and 530, conquering the Himyarites and leaving an Abyssinian governor. By about 570, however, the Persians conquered and controlled the whole of Arabia. (Ref. [1](#), [2](#))

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON, & IRAQ AND SYRIA

The western portion of this large area continued to share in the fate of Byzantium. Christian vandalism against the Jews and Samaritans¹, which had started in the preceding century, now increased with destruction of synagogues and temples. An earthquake of 526 did not help matters when it killed 200,000 to 300,000 people in Antioch. (Ref. [3](#)) The Jews and Samaritans revolted in 529 and again in 560 and finally welcomed the invasion of the Persians as they extended their empire once again about 570. The Jews took this opportunity to destroy a few churches and Christians in revenge. Of course, the entire eastern portion of this Syrian area, that is, most of present day Iraq, belonged to the great Persian Empire throughout this period.

IRAN: PERSIA

King Kobad, previously expelled by his own nobles, returned to the

throne in 501 and waged the first war with Byzantium. But his previous friends, the Ephthalites, raided from the northeast and he had to sue for peace with the Christians before he could finally expel the Asian invaders from Persia in A.D. 513. The 2nd Byzantine-Persian War followed from 524 to 531 and at the end of that conflict Kobad's son, Chosroes I (or Khosru or Khosrau), became the greatest of the Persian kings. To insure his dynasty, like many another Asian monarch, he executed all of his brothers and their male offspring with one exception and included Mazdak and all of his followers. It was he who finally completely defeated the Ephthalites in central Asia in 557.

Pahlavi, the Indo-European language of Parthian Persia, was still in use and Zoroastrianism was the official religion, with the God Ormuzd and the devil Ahriman. Chosroes' reign was tolerant, however, to Nestorian and other brands of Christians and to Jews. He actually helped the Nestorians to establish a library. The great Persian Medical School at Gondishapur also had a famous medical library containing works from Byzantium and perhaps some of Hippocrates' works came through here to the Arabic world. In this hey-day of the Persian Empire, the University of Judi-i-Shapur became the greatest intellectual center of the world, with teachers and scholars from all over Europe and Asia. Roads and villages were rebuilt and there was reform of the fiscal system and taxation methods. Many irrigation systems were completed and the famous metal-workers of Antioch, Syria were brought to Iran. (Ref. 4, 5)

After the Persians had driven to the Mediterranean coast and taken all of the Arabian peninsula, Byzantium allied with the Turks drifting down from the Eurasian border,- but they still could not defeat the Persians. At the end of the century, however, the Persian Empire became divided into four great satrapies: the east, comprised of Khosasan and Kerman; the west, including Iraq and Mesopotamia; the north, made up of Armenia and Azerbaijan; and the south, which contained Fars and Khuziasan. Wars continued on all borders until the end of the century.

ASIA MINOR

TURKEY: BYZANTIUM

The zenith of the Byzantine Empire was reached under the Emperor Justinian who was born in Sofia, possibly of Slavic peasant parents.

He encouraged the oriental conception of royalty as divine, but labored to reunite the western and eastern Christian churches. He was strongly influenced by his wife, Theodora, a woman also of humble origins. The Justinian Code of Laws have remained in history as part of the Canonical Laws of the Catholic Church. Constantinople remained the greatest market and shipping center in the world, with companion harbors on the Black Sea and a direct sea route established through the Red Sea to India. Although the secret of silk was jealously guarded in the Far East, by various means Justinian introduced silk worms, white mulberries, the method of unwinding cocoons and the weaving of the thread, into Byzantium so that he also became the emperor of silk. From this the western Christian empire earned a fortune which it guarded for centuries. (Ref. 6)

On the religious front the church was unrelenting, the Jewish *deuterosis* was outlawed and there were expulsions of Jews with some massacres in Antioch in 592 and in Jerusalem after the turn of the century. Justinian's General Belisarius reconquered North Africa and southern Spain from the Vandals and most of Italy from the Goths, bringing the empire to its greatest geographical extent. (Ref. 7) Many of the units of the Byzantine army of this 6th century were remnants of the Huns called "Massagetae". They were intemperate drinkers and often difficult to control, although fierce warriors. (Ref. 8)

In the years 542 and 543 a great epidemic, of ten called the "Plague of Justinian" hit Asia Minor. This was definitely bubonic plague, penetrating from an original focus either in northeastern India or central Africa and spreading around the Mediterranean by ship. Necessary to this spread was the appearance of the black rat from its native India, along with its fleas. Procopius reported that 10,000 people died daily in Constantinople at the peak of the epidemic and the disease raged for four months. The political effect was great and the imperial power was weakened. Another epidemic in 655 and famine in 569, along with attacks by Bulgars and Avars from the Balkan area, all contributed to dissolution of the empire soon after Justinian's death. (Ref. 9, 10)

ARMENIA

Armenia was caught up in most of the wars between Byzantium and

Persia. For the most of this era it was subservient to Persia, but late in the century both Georgia and Armenia were again partitioned with Byzantium getting a large part of the latter. Because of Byzantine help to the Persian King Chosroes II in an internal fight, this monarch, once reestablished on the Persian throne, ceded Iberia and nearly all of Armenia to the

Eastern Roman Empire in A.D. 591, thus allowing Byzantine troops stationed there to return to defend the Balkans against the Avars. (Ref. 11)

1

[82] GROVE, NOEL, "North Yemen", National Geographic 156: 244, Aug. 1979.

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[49] DURANT, WILL, *Ibid.*, Part IV - The Age of Faith. (1950).

1. The Samaritans were remnants of Babylonians and Syrians whose ancestors had migrated to Palestine nearly a thousand years before. They were not Jews but used the Pentateuch as their holy book, without accepting any other part of the Bible

The Near East: A.D. 601 to 700

THE NEAR EAST (AN AMAZING CONQUEST OF THE NEAR EAST BY ISLAMIC ARABS)

It was in this century that the people of Kurdistan were converted to the Sunni variety of Islam. The Kurds are a people closely related ethnically to the Persians, who have tried through the ages to keep themselves intact as sheep-raising and rug weaving nomads, without respect to political boundaries. Kurdistan embraces the present day areas of east TURKEY, Soviet Armenia, northeast Iraq and northwest Iran. (Ref. 1)

ARABIA AND JORDAN

Muhammad (or Mohammed) was born in the south of Arabia of poor parentage early in the century. He married wealth and soon began to teach a new religion, taking as basic beliefs the monotheism of the Jews. He accepted Jesus as a prophet and formulated a new creed of behavior for his fellow Arabs. He had the visionary power of a seer, the astuteness of a master politician and a poet's mastery of language. (Ref. 2) By the time of his death in A.D. 636 his followers had already become almost fanatical in their zeal to spread the new faith and their armies poured out of the Arabian Peninsula to sell the religion by force of arms. The Arabs' military success approached the miraculous as they subdued the greatest kingdoms with small armies made up of mounted men on the famed Arabian horses. (Ref. 3)

MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON & IRAQ AND SYRIA

The early part of the century was a period of some general decay in

this entire area, with Persia and Byzantium more or less splitting control. At the death of Emperor

Maurice of Byzantium at the hands of his own soldiers, Chosroes II of Persia went on a conquering spree, taking Roman Mesopotamia in 607-615, then Armenia and some of Anatolia itself. But the pestilences which had visited the Romans and Persians alike from 542 on may explain in great part the little resistance their forces offered the Moslem eruption in 634. By the time of the Arab conquest Syria, in general, was an impoverished and stricken land. Damascus, as well as Jerusalem, had not recovered from the effects of the previous long and terrible sieges. Palmyra stood empty. In Mesopotamia there is some evidence that many irrigation canals had been abandoned, probably from a lack of labor supply due to the plague, before the Moslems had even arrived and it is doubtful if the Arabs actually destroyed much. (Ref. 4, 5)

The first incursion of Arabs into Iraq occurred in A.D. 633 with forces under Khalid ibn-al-Walid, although the main advance was a little to the west into Syria. They defeated the Byzantines in a last battle at Yarmuk in 636 and Jerusalem capitulated in 638. The chief administrator of Iraq and the coastal region from 644 to 656 was Othman (also Uthman) of the Omayyad (also Umayyad) family. Using his nepotism as an excuse, troops from Iraq and Egypt assassinated Othman in Medina in 656 and he was succeeded by Ali, the prophet's cousin and son-in-law. Mo'awiya, an Omayyad governor of Syria, disputed this succession, proclaimed himself caliph¹ in Jerusalem in 660 and went on to establish a capital at Damascus in 661, initiating the Omayyad Caliphate. Descendants of Ali continued intermittent warfare with the combatants eventually ending up as the northern (Omayyad) Arabs against the southern. The latter were chiefly the Shi'ites² and by the end of the century these partisans were more or less in control of Arabia, Persia and Mesopotamia. In addition, the old line of demarcation between Roman Syria and Persian Iraq or Mesopotamia survived this Moslem conquest. A strong sense of difference between the populations at large in these two provinces, fostered by the differences in their respective administrations easily coalesced with long standing rivalries in the two Arab garrisons. Many civil wars resulted. (Ref. 6, 7)

As the Arab armies overran Mesopotamia and Iran, sizable groups of Jews were pretty well left alone as protected minorities. All

aspects of their civil and religious life were administered by Jewish officials in accordance with the Babylonian Talmud. At this time Hindu numerals were in use in Syria and later these became known as "Arabic numerals". (Ref. 8)

IRAN: PERSIA

As the century began Chosroes II ruled the Persians with avarice, suspicion and cruelty and a ruinous taxation to support his own splendid living. His armies fought their way to the Bosphorus and to Egypt and came within sight of Constantinople but some 10 years later Emperor Honorius, in alliance with the Khazars just east of the Caspian, struck back, attacking the Persian homeland (623-624). The Persians retaliated by attacking Constantinople once again with Avar help in 626 but the east Roman navy kept the two land forces apart and the attack was a failure. Chosroes II was then murdered by his nobles and his son, Kavadh II, made the final peace, surrendering Egypt, Palestine, Syria, Asia Minor and western Mesopotamia back to the Byzantine Empire. Then pestilence broke out in Persia and thousands died, including the king. There followed a fight for the throne and in this atmosphere of disease and general moral decay and decline came the Arab armies of Islam about 636 and Persia quickly became part of the Moslem realm. The decisive action with the Arabs occurred at Al Qadisiya, Iraq, when the Persian army was literally smashed, allowing Arab capture of the capital, Ctesiphon (very near Selucia in Mesopotamia), in A.D. 635, thus opening the road to the main Iranian plateau. After the take-over a few Persian nobles maintained their independence in the mountains of Tabaristan at the south end of the Caspian. (Ref. 9, 10)

The Arabs did not force their conquered subjects to embrace Islam but did require them to accept the Koran as divine teaching and obliged them to learn Arabic, thus building an empire united by a common tongue. (Ref. 11, 12) There were probably many factors in the easy fall of the great Persian Empire to the surging Arab armies. In addition to the factors listed in the paragraph above, it should be realized that both Byzantium and

Sassanian Persia had exhausted themselves battling each other for many years. But there was also an economic cause of decline as the use of the Silk Route to China diminished. The Byzantines had smuggled silk cocoons from China and could now supply themselves

with silk and the economy suffered all along the old route.

Byzantium had become the original heir of classical Greek medicine but during the persecutions of a number of learned heretics they fled to Persia, where, at Jundishapur, they met Syrian, Persian and Hindu scholars and working together, they translated many important works into Syriac, the new language of learning in the Near East. When Persia fell to the Arabs, many works of medicine were then translated from Syriac into Arabic, including large works of Galen. (Ref. 13)

ASIA MINOR

TURKEY

After Emperor Justinian's death at the close of the preceding century (595) the eastern Roman Empire collapsed with nothing left except a few Asiatic ports, some fragments of Italy, Africa and Greece. The capital itself was besieged by the Persians under Chosroes II, helped in the north by an army of Avars. In A.D. 602 the "Roman" army fighting the Avars revolted, returned to Constantinople and murdered Emperor Maurice, while the Avars devastated the Balkans. The cross-bow reached Byzantium from central Asia at about this time, perhaps borrowed from the Avars. (Ref. 14, 15)

The whole of the Asia Minor peninsula had been ploughed and furrowed by Persian armies and the great cities had been plundered and sacked, but the Byzantines still had an unbeaten navy and after 10 years, Heraclius, the new emperor, built a new army, sailed across the Black Sea, marched across Armenia and attacked and defeated Persia from the rear (A.D. 624). The victory was a hollow one, however, as the Arabs soon advanced into this territory with Khalid ibn al-Walid defeating a Byzantine army at the battle of the Yarmuk. The Byzantine frontiers were backed into Turkey, proper, again and after 673 the Moslems even blocked Constantinople both by land and sea, allowing it to be attacked every year for the next five. Only the strength of the city's walls and the appearance of "Greek fire", an explosive of unknown composition, saved the empire.

Although we have used the terms "Byzantine" and "Byzantium" freely in the last few chapters, actually it was not until the second half of this century that earlier historians applied these names in reference to the eastern Roman Empire. "Byzantion" was the old

Greek name for Constantinople, and as the language of this eastern empire became chiefly Greek, the term "Byzantium" came into use. (Ref. 16)

ARMENIA

Throughout most of this century Armenia was in the middle of a three-cornered war involving Arabs, Khazars and Byzantines, but they managed to remain virtually sovereign and zealously Christian. (Ref. 17) After first being overrun by the eastern Roman army on its way to Persia, later the Arabs invaded. In the first several decades the higher classes had great prosperity incident to the exportation of manufactured goods and raw mining products. It was also a period of intellectual activity with philosophical, mathematical, astronomical and cartographic studies. Ananias, of Shirak, was a great scientist. Many Armenians served as mercenaries for Byzantium, particularly after the Arabs appeared on the scene and by late century the mainstays of that army were Armenian. (Ref. 18)

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1. A caliph is the religious and civil leader of a Moslem state and the region he controls is a caliphate. In contrast an emir may be just an Arab chieftain or a favored descendant of Mohammed
2. The Shi'ites (or Shiah) represent one of the two great divisions of the Moslem faith. They believe that only the descendants of Ali are eligible to be caliphs

The Near East: A.D. 701 to 800

THE NEAR EAST

During their three centuries of control the Arabs spread citrus fruits and almonds across the Mediterranean, even to Spain, and rice and sugar cane cuttings (from Persia) and saffron to the west. (Ref. 1) In addition they had mastered techniques of spinning and weaving silk and they transmitted seri-culture to the west via Sicily and Spain. Europe, however, was slow to accept silk. (Ref. 2) About A.D. 750 the Arabs brought the decimal system from India, but it was not used in Europe for another 500 years. (Ref. 3)

This entire NEAR EAST, including our four designated territories of ARABIA AND JORDAN, MEDITERRANEAN COAST AREAS, IRAQ AND SYRIA and IRAN, were now all joined as the central area of the giant Arabian Moslem Empire. As a result of military maneuvers the farmlands of Palestine were laid waste, not to be entirely reclaimed for 12 centuries. (Ref. 4) As the Moslem armies went through Spain and into France to be stopped finally at Tours in 732, some dissension appeared at home and by A.D. 749 there was open rebellion and a massacre of the Omayyad family at their capital, Damascus.

The Omayyad caliphs had forgotten their desert origins and had degenerated. Caliph al Walid II, who delighted in swimming and drinking in a pool of wine, was killed in a Yemenite revolt in 744. The last of the Omayyads was Marwan II, defeated and killed in the Battle of the Zab, associated with the general massacre of the family. The caliphate then became hereditary in the Abbasid family, beginning with Harun al Rashid, who changed the capital from Damascus to the newly built city of Baghdad in 763. The Abbasids stayed orthodox (Sunni), in spite of support they had had from Shi'ites while coming into power. Baghdad was a circular city 1.5

miles in diameter, ringed by three lines of walls and its construction involved 100,000 laborers. (Ref. [5](#), [6](#), [7](#))

Harun al Rashid was a great general, administrator and judge, who initiated many changes including the abolition of all distinctions between Arab and non-Arab Moslems. His administration supported any activity that would bind minority groups tighter to the central authority. The main military support came from Persian converts of eastern Iran and they out-fought the Arab garrisons of Iraq and Syria. The Abbasids completed the process of Persianizing the institution of the caliphate. Persians who served under the caliph increasingly filled the high offices of state and the entire administration was reorganized on Persian lines, with an efficient fiscal system, a good postal service from one end of the empire to the other and the establishment of trade routes to India, China, Ceylon and the Mediterranean. The Islamic world was united by a single religion, single language and a nearly unitary culture. The administration, culture and geographical limits in the Near East were about the same as the old Achaemenid Empire of the 6th century B.C. Paper mills were operating in Baghdad and the harem-eunuch system was developed along with *purdah* (veiled women). It should be noted that large numbers of east African Negro slaves were purchased for agricultural work and they were harshly treated. (Ref. [8](#), [9](#), [10](#))

Arabic, the youngest Semitic tongue, had in those early times a highly developed oral, but virtually no written tradition. There was much poetry depicting the life of the proud Bedouin. In the new Islamic Empire, Arabic became the chief instrument of everyday speech as well as of culture, replacing Aramaic, Coptic, Greek and Latin. Arabic also had enormous influences on other Muslim languages, such as Persian and Turkish. (Ref. [11](#))

ASIA MINOR

Asia Minor is the one portion of our chosen NEAR EAST classification that was not included in the paragraphs above, as the Christian Byzantines kept a tenuous hold on a part of this region, necessitating a separate consideration.

TURKEY

The Emperor Leo III (717) who announced the Iconoclastic policy,

was an Isaurian, the first oriental on the throne. He carved out a brief ghost of the old Byzantine Empire, like Charlemagne's Empire in the West, turning the Eastern Church into a sort of department of state. But this Byzantium was a peculiar post-humous existence of the antique civilization and it was almost sealed off from western Europe, partly by the Greek language, partly by a religious difference but chiefly because it didn't want to get involved in the bloody feuds of the western barbarians. It had its own eastern barbarians to deal with. In Constantinople and other cities a series of plagues and earthquakes had drastically reduced the populations. Bubonic plague killed 200,000 between 732 and 736 and then after a terrible earthquake in 740 there were not enough local people left to repair the damage. Intermittent warfare with the Arabs added to the drain of manpower. The second great siege of Constantinople by the Arabs occurred in 717-718 with attacks by both land and sea. The defenses held and Constantine V actually took the offensive, carrying the war into Syria in 745 and destroying a great Arab armada and reconquering Cyprus in 746.

Another campaign followed in Armenia and there were nine successive campaigns against the Bulgars, with ultimate victory. (Ref. [12](#), [13](#))

Still, by 771 the Byzantine Empire had shrunk down to primarily the western 2/3 of the Anatolian peninsula, along with Greece, Sicily, a few islands and a narrow coast line along Dalmatia. Intermittent battles along with pay-offs to the Arabs continued throughout the century and at the end there was much family stress in the emperor's house, with Irene, mother of Constantine VI, eventually having her son killed so that she could reign, herself, as Empress.

ARMENIA

The Byzantium-Moslem wars and the cruel repressions which followed each conquest or revolt had ruined and decimated this country. Under the Abbasid rule from Baghdad the situation became even worse and the population of Armenia was reduced to poverty.

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The Near East: A.D. 801 to 900

THE NEAR EAST

ARABIA AND JORDAN

The original home of the Moslems was no longer the center of their activity, but Muhammed's home area at Mecca remained their religious focal point. At the end of this century this city was controlled by the heretical Shi'ite sect. Moslem states which remained separate from the Abbasid Caliphate were set up in eastern Arabia and Yemen. (Ref. [11](#))

[1](#)

Actually it extended even farther, to Baghdad, in Mesopotamia. It was lavishly equipped with wells, catch basins, rest stops and hostels for pilgrims to Mecca. The name "Zubaida" was that of the wife of Caliph Harun al Rashid. (Ref. [2](#))

MEDITERRANEAN COASTAL AREAS & IRAQ AND SYRIA

Early in the century, with the Abbasid Moslem administration at Baghdad, there was remarkable growth of that city. By 814 it covered approximately 10 by 9 kilometers, the equivalent of modern-day Paris within the outer boulevards. (Ref. [3](#)) The caliph in Baghdad was the most powerful man on earth and the Arab dhows rode the Indian Ocean from end to end. (Ref. [4](#)) The reign of Mamun the Great (813-833) was probably the most glorious of all. Damascus and Baghdad each had observatories and a House of Knowledge, with a rich library in the latter city. (Ref. [5](#)) Later, even as the administration began a decline there was still considerable progress in the area in science, literature, astronomy and medicine.

Translations continued to be made from Syriac, Greek, Pahlavi and Sanskrit to Arabic. Johannitus was one of the great translators of medicine just after 800. The Hellenistic heritage was appropriated with some added original Moslem contributions. The mathematician, Al-Kharizmi, for example, became the first to use Indian (our Arabic) numerals to develop new forms of calculation.

In the west of this region, Syria played its usual role as a border state between two rival empires, this time the eastern Abbasids of Baghdad and the Turkish controlled Egypt. Early in the century the former dominated but about 870 Syria was conquered for Egypt by Ahmad ibn Tulun, one of the Turkish mercenaries originally hired by the caliphs for personal body guards and armies.

IRAN: PERSIA

As the Abbasid Caliphate eventually became corrupt and weakened, it gave way in the last of the century in Persia to the native Saffarid Dynasty, which also ruled part of Central Asia. One spot just south of the Caspian remained separate as the Shi'ite Emir- ate of Alid (Descendant of Ali). (Ref. 6) The Persian language was revived. Windmills with vertical sails fitted to wheels turning horizontally were operating in Persia by this century and possibly much earlier. These mills may have spread from Iran to China as well as to the Mediterranean. (Ref. 7)²

²

(Ref. 8)

ASIA MINOR: ANATOLIA

TURKEY (BYZANTIUM)

Although the Emperor Nicephorus made peace with Charlemagne in 803 so that the eastern empire could retain control of southern Italy, Venice and Dalmatia, he could not pacify the Arabs who resumed raids in 804 through 806. As a result the Byzantines lost control of the seas and African Moslems took Crete and invaded Sicily. The Rus took over the Black Sea and by 860 attacked Constantinople itself. After 867 Byzantine fortunes improved, however, as a capable general, Basil I, founded the Macedonian

Dynasty. Although born in Macedonia, Basil was actually of Armenian descent. In the meantime, in spite of the more or less constant and losing warfare, as is so often the case, the Greek Byzantine Empire at the same time enjoyed a brief renaissance as the University of Constantinople was restored and an Alexandrian Age of scholarship developed. Schools of law and medicine, as well as philosophy and mathematics, were promoted. A unique and formidable religious art accompanied the intellectual activity, particularly after the Council of Sophia had allowed the return of iconoclasm and instituted a new period of persecution of certain monks.

ARMENIA

The Christian kingdom of Armenia, which now included the old Georgian kingdom of Iberia, kept independent of the Arabs by paying tribute. The Bagratuni family established a dynasty under the title of "Prince of Princes", built a capital at Ani and gave the country several generations of progress and relative peace. Ashot I was the first independent sovereign, ushering in Armenia's "Golden Age". (Ref. 9)

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The Near East: A.D. 901 to 1000

THE NEAR EAST

Beginning about 960 Turkish tribesmen infiltrated the central regions of the Islamic world, seizing power in Mesopotamia and Iran. We shall see that at the same time other Turkish people invaded the Ukraine and on their other flank charged the Chinese borders. (Ref. 1)

ARABIA AND JORDAN

The actual center of the Arab administration and religion had shifted out of the Arabian peninsula. In the south a Shi'ite sect, the Qarmatians (Carmathians) had revolted against the Abbasids in 899 and then remained completely independent as the chief civilization center in that part of the Arab world. (Ref. 2)

It seems appropriate at this time to consider, for a moment, the world effect of the Arabian culture and particularly the Arabic language. Many Arabic words were widely used throughout civilization at that time and have come down to us in English. These include tariff, traffic, magazine, caravan, bazaar, check, cipher and zero. Algebra, an Arabic word, was a subject developed extensively, with both analytical and geometric solutions of equations. Chemistry was almost created by the Moslems.

MEDITERRANEAN COASTAL AREA

These coastal areas, as well as much of western Syria, were now controlled by the Egyptian caliphate, even through the periods of changing administrations.

IRAQ AND SYRIA

The Abbasid Dynasty at Baghdad became weaker and weaker, while the caliph, himself, was at the mercy of his Turkish "praetorians", whose chiefs came and went in rapid succession. One after another of the provinces was lost to the central government and finally, although the Abbasid Caliph persisted as the Moslem religious head (comparable to the pope in the Catholic world), the government of this near east area was taken over by the Buwayhid Emirate, a pro-Shi'ite, Turkish dynasty. (Ref. 3) These Seljuk (also Seljuq) Turks established themselves in Baghdad with a new kind of Muslim state based on a partnership between men of the sword (chiefly their own Turks) and bureaucrats and men of the law (Persians or Arabs), all under the name of the Abbasid Caliphate. (Ref. 4) As Toynbee (Ref. 5), has written, the Abbasid name continued to be used by the usurpers of its power, for seven centuries after the beginning of its decline, just by virtue of its long tenure.

In spite of political decay, science and art continued to advance. Hospitals and medical science were especially good and extensive, with 860 licensed physicians in Baghdad alone, in A.D. 931. The hospital at Damascus had elegant rooms and an extensive medical library. (Ref. 6) We mentioned on page 479 that al-Khwarizmi introduced "Arabic" numerals from India. In this century he used the decimal system and wrote standard treatises on al-jabr (algebra).

IRAN: PERSIA

The Samanid Dynasty continued, ruling the adjacent part of Central Asia as well as most of Persia, proper. The Persian language was used with commercial activity at its height. Avicenna, of north Persia, was the greatest of the medieval philosophers and also an excellent physician, writing the "Canon of Medicine", which was used at Montpellier Medical School of southern France when it was established in 1650. Al Razi (or Rhazes), a Persian who wrote in Arabic, was considered the greatest of all medieval physicians. The medical Arabists (which included Nestorian Christians, Persians and Jews, who were not ethnic Arabs) relied both on writers of the past, such as Galen, and on developing new aspects of pharmacy and chemistry, including techniques of distillation, crystallization,

solution, sublimation, reduction, and calcination. They were good clinicians and instructors, describing such things as scabies and mediastinal abscesses, previously unrecognized. Midwives did much of the obstetric and gynecological work, however. (Ref. 7)

The manufacture of astrolabes had already begun in Persia at Isfahan and certain stylistic features of the earliest of these remained typical of eastern Islamic astrolabes throughout their history. These were complicated observational and computing instruments for astronomers. (Ref. 8) The conversion to Islam of the old, heavy horse cavalrymen caused them to abandon their old military ethic and as a result of this decrease in protection, nomad raiding from the steppe began again with the appearance of Turkish invaders. Chief among these were the Ghaznawids, under commander-in-chief Subaktagin, formerly a slave in Khorasan. (Ref. 9)¹

¹
(Ref. 10)

ASIA MINOR

TURKEY: BYZANTIUM

In spite of being ringed by enemies and having only a small geographical area, this was a time of prosperity for the Macedonian Dynasty. The army was good, there was little religious controversy, the provinces were well governed and Constantinople was the richest city of the world. The emperors continued to have Norse mercenaries as the Varangian guard. There were continued Romano-Bulgarian wars, however, and this caused some breakdown in the Greek Orthodox Christian Society and some territory continued to be lost. The great warrior Emperor Basil II began to reign in 976, but Anatolia was soon overrun by great feudal barons who eventually began to rise up against Basil. (Ref. 11)

As a side light of some medical interest, a 1978 study of skeletons dating between the 7th and 12th centuries, from Kalenderhane Camii in Istanbul, indicated good nutrition and general health of the individuals of this region. The average height for males was 5'6" and for women 5'1". Mongoloid features, such as shovel-shaped incisors, pinched foreheads, etc. occurred in 15 to

25%, suggesting mercenaries and merchants either from beyond the Caucasus or from the Russian steppes. 69% of the males showed osteoarthritic changes in the spine and 33% in the extremities. (Ref. [12](#))

ARMENIA

Sajid Emir of Azerbaijan, on the southwest coast of the Caspian, spent the early century forming a new Armenian kingdom called "Vaspurakan", south of Armenia proper, thus creating a rivalry that actually resulted in Armenians killing Armenians. (Ref. [13](#)) In the original country, however, the reign of Gagik I marked the apogee of the material prosperity and cultural revival of Armenia. The Bagratunis continued to reign until about A.D. 1,000 when the central authority became weak and broke down with the formation of about six virtually independent kingdoms. (Ref. [14](#))

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The Near East: A.D. 1001 to 1100

THE NEAR EAST

ARABIA AND JORDAN, MEDITERRANEAN COASTAL AREAS, & IRAQ AND SYRIA

In the last chapter we witnessed the fragmentation of the once great Abbasid Empire. Its breakdown paved the way for the takeover late in this 11th century by a new Turkish power coming out of the east - a new wave of Seljuqs, a clan of mercenary Ghuzz who had revolted from Ghaznavid employ in 1037 and then soon took over entire control of the area, even of the parent tribe. The remaining Ghuzz, as we shall see later, crossed on west, north of the Caspian and were there known as "Cumans". The Buwayhid Emirate was already breaking up as these new Seljuqs arrived. The latter were orthodox Sunnites and they defeated the Shi'ite rulers, established themselves as the protectors of the Baghdad caliph and then went on to the Mediterranean coast. By the time the surviving stragglers of the 1st Christian Crusade reached the area of Jerusalem, intending to drive out those invading Turks, they had already been pushed back temporarily by the Fatimids of Egypt. Nevertheless, the good Christians slaughtered all the Moslems they could reach and did establish a number of small states, including the Latin Kingdom of Jerusalem (A.D. 1099), none of which lasted much more than a century. It was at this time that a group of Italian merchants from Amalfi established an hostel to care for the pilgrims visiting the shrines in Jerusalem, calling themselves "Knights Templar and the Hospitallers", which was to become the most powerful military order west of the Jordan River. (Ref. 1) Antioch was captured by Crusaders in 1098 and was ruled by them for nearly two centuries. The Christians called all this land from northern Syria to the Red Sea "outremer", meaning "beyond the sea". The Druze Muslim sect,

descendants of ancient nomads, settled in the mountains by the Jordanian border. Some were tall, fair and blue-eyed, perhaps the remnants of intermarriage with Alexander's Greeks¹ (Ref. 2)

Actually the primary interest of the Seljuqs was not the West but the control of Baghdad and the rich lands of northern Syria, as well as the destruction of the Fatimid Caliphate of Egypt, whose power threatened and whose heretic Shi'ite beliefs were an abomination to the rigidly orthodox Turks. (Ref. 3, 4, 5) Merchants in Iraq and adjacent regions had attained greater wealth and social prestige in the 10th century and the first part of the 11th than ever before but this was not to last long. (Ref. 6)

IRAN: PERSIA

At the beginning of this century Mahmud the Turk, leader of a remnant of the Kirghiz from Turkistan, who had ruled from Ghazni, Afghanistan for a century or so, took all of Persia and the Punjab in India, becoming the greatest of the Afghan rulers. His realm was short-lived, however, as a rival Turkish power, the Seljuq branch of the Ghuzz came out of Turkistan and Transoxiana and moving west, took the dynasties of Asiatic Islam one by one. The greatest Seljuq sultan was Malik-Shah. By 1055 the Ghaznavids had been expelled from Persia and the Buwayhids conquered. The conquest of southwestern Asia and even Asia Minor had been completed by 1090, although by the following year the sultanate had again broken up into a dozen warring factions. In the northern mountains of Persia (also in northern Syria), one branch of Shi'ites, the Ismailis, doped up on hashish, reigned with terror, murdering generals, viziers and even caliphs. They were called *hashshashin* (Hashish eaters) and thus our word "assassins". (Ref. 7)

Omar Khayyam, a Persian living in the last half of this century, was one of the greatest mathematicians of medieval times, developing a partial solution of cubic equations.- He was also without equal in astronomy and philosophy, an atheist, or advanced "free-thinker" and rejected all theology. It is ironical that he is known chiefly to us as a composer of quatrains, such as the Rubaiyah (from *rubai* - composed of 4), but all Persians in those days were poets and this was only a diversionary activity of the great Khayyam. Avicenna², about whom we made mention in the last century, continued to work until his death in 1037. He was a

Persian boy prodigy who is said to have mastered the Koran by age 10. At age 21 he wrote a scientific encyclopedia but his chief renown is as a physician, compiler, commentator and writer. Some of his texts were used as the basis for medical teaching, even in the British Isles, until the middle of the 17th century. It is said that he mentioned coffee in his writings and the word is definitely of Arabic origin, although the drink possibly originated in Ethiopia. *Kahwah*, originally meaning "wine", was used also to mean "coffee" and the later became *kihwhah*. (Ref. [8](#), [9](#))

ASIA MINOR

TURKEY

Early in this century there was again a temporary resurgence of Byzantium, with Emperor Basil II eliminating the west-Bulgarian Empire, then reducing the Serbs to vassalage and conquering the Crimea (A.D. 1016) and annexing the Vaspurakan Armenian Kingdom. (A.D. 1022). Under the Macedonian emperors the structure of Byzantine society came closely to resemble that of Sassanian Iran. Princely landowners with armed retinues arose and there were confused clashes between rural and urban aristocracies. In the end this proved fatal to the imperial bureaucratic power.

One of the decisive battles of history occurred in 1071 when the Byzantine army was destroyed by the Seljuqs at Manzikert, north of Lake Van. After that, western Anatolia was controlled by the Sultanate of Rum and the Eastern Christian Empire consisted only of Constantinople, which had nearly one million people, and Greece. All of Asia Minor was in the control of the Seljuq Turks. Hereafter in this outline, Byzantium will be discussed under the section on GREECE. (Ref. [11](#), [12](#))

ARMENIA

Even with fragmentation and multiple kingdoms, the wealth, industry and trade of this area allowed of great prosperity. The people exported beautiful carpets and textiles, furs and leather goods, lumber, fish, minerals including gold, silver and copper, horses and mules, borax and salt. The monasteries had acquired great riches and their schools led a cultural revival, with skilled painters and incomparable scribes, poets and historians.

Gagik I, ruler of one of the major Armenian kingdoms, lived until

1020 when the country had reached the height of prosperity. In mid-century the Byzantines, in a last gasp, took over this territory until the Seljuq Turks conquered the entire area, along with the rest of the Middle East. The capital Ani fell in 1064 but many Armenians had already fled to the Taurus mountains and were bypassed by the Turks. After Ani fell, others moved to Cilicia, where they founded another kingdom called Lesser Armenia, an entity which lasted until the 14th century. While Armenia, proper, was divided, Georgia became unified and maintained independence until the 13th century. (Ref. [13](#))

[1](#)

[86] HANSEN, JAMES, "Knights of Malta, mini-nation based on Chivalry", Smithsonian 12: 112-127, Jan. 1982.

[2](#)

[118] FAY, HOWARD, "Syria", National Geographic 157: 485-511, Apr. 1980.

[3](#)

[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

[4](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[5](#)

[68] GARRATY, JOHN A. and GAY, PETER, (Editors), The Columbia History of the World. (Harper & Row, New York, 1972).

[6](#)

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[7](#)

[2] ABERCROMBIE, THOMAS J., "The Sweep of Islam.", Great Religions of the World, (National Geographic Society, 1978 Edition).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

1. At the present there are still about 300,000 of these people in Syria, Lebanon and Israel, fighting Christians whenever they have the opportunity
2. Avicenna's Persian name was Abu-ali al-Husayn ibn-Sina. (Ref. 10)

The Near East: A.D. 1101 to 1200

THE NEAR EAST

ARABIA AND JORDAN, MEDITERRANEAN COASTAL AREAS, & IRAQ AND SYRIA

In the north and east of this area the power of the Seljuqs waned as Sultan Sinjar died and the entire Near East became divided among warring kings, all Moslem. The western marches of the Sultanate of Hamadan were in the control of various emirs or *atabegs* (guardians for infant princes) and they were unable to prevent the founding of some Crusader states, such as Edessa and Jerusalem. In A.D. 1121 the Georgians from the Caucasus swept down as far as Tiflis. But a counter-blow by Zangi and his son Nureddin, establishing the Zangid Sultanate, soon unified Syria, with the absorption of Damascus and soon Egypt. (Ref. [1](#)) The Crusaders kept on trying for territory, even after Saladin controlled the entire area. France's Philip captured Acre in 1191 and Richard of England negotiated with Saladin in 1192 and obtained a 3 year truce allowing the Christians a coastal strip between Joppa and Acre and access to Jerusalem. The Knights Templar and Hospitallers continued their mercy and military presence in that city. (Ref. [2](#))

IRAN: PERSIA

The century opened with the Seljuq Sultan of Hamadan controlling all of Persia except a small region south of the Caspian which was still ruled by the Assassins of Alamut. In the last half of the century, however, the sultanate was shrunk by inroads from the Arabian Peninsula of a new Abbasid Caliphate and from the west by the Zangid Sultanate which extended out from Syria. New emirates from Armenia and Azerbaijan on the western Caspian shore also

appeared. (Ref. 3)

ASIA MINOR: ANATOLIA

TURKEY

The 1st Crusade left Anatolia in some confusion, with several small states, but although the remnant of the Byzantine Empire still held the coastal areas bordering the Aegean Sea (See map on page 575) the rest of Turkey became de-Hellenized and the Moslem culture predominated. Byzantine Emperor John II Comnenus did manage to exterminate the Patzinak Turks in the Balkans in 1122 but this was followed by a four year war with Venice. Peace with both Hungary and Venice occurred in 1126. (Ref. 4) The Sultanate of Nicaea, which had originally taken the major part of the Byzantine land, broke up with the Seljuqs holding the southwest half of Iconium and the Danishmandids inheriting the region northeast of that. The former soon broke up into still smaller emirates, however. (Ref. 5)

ARMENIA

Armenia proper was now ruled by Moslem Turks and Kurds but across the Tarsus Mountains in Cilicia, the Armenian people formed the country of Lesser Armenia, which now stood off all attacks and reached unparalleled prosperity.

1

[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

2

[86] HANSEN, JAMES, "Knights of Malta, mini-nation based on Chivalry", Smithsonian 12: 112-127, Jan. 1982.

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

The Near East: A.D. 1201 to 1300

THE NEAR EAST

If the reader is perusing this manuscript as a narrative and reading straight through, it is suggested at this point that he stop and turn now to CENTRAL AND NORTHERN ASIA, this chapter, as the great Mongol invasions affected all parts of Eurasia and it will be important to have an understanding of the Mongol people, their organization and their homeland before attempting to interpret the remaining material in this 13th century.

ARABIA AND JORDAN

Except for the holy cities of Mecca and Medina, Arabia once again sank into oblivion and remained only on the fringe of world activity.

COASTAL AREAS OF ISRAEL AND LEBANON

This area and particularly Jerusalem, was the scene of the Moslem-Christian battles incident to the Crusades. The Latin Kingdom of Jerusalem, which had been established in 1099, lasted less than a hundred years, but the Ayyubid Sultanate of Syria still allowed Christians to have that city and a small coastal corridor to prevent additional pin-pricking crusades. (Ref. 1) The Knights Templar and Hospitallers order of Italian Christian Knights continued to dominate the narrow coastal area until Acre finally fell to the Turks in 1291.

The Hospitallers then withdrew to Cyprus, taking sugar, which they had encountered in Syria, with them. (Ref. 2) In the meantime the Mamluk Turks from Egypt had defeated the Moslem forces from

Syria in the great battle at Ain Jalut, near Nazareth, on September 3, 1260.

IRAQ AND SYRIA

The small Abbasid Caliphate, which had existed for about a century at the mouths of the Tigris and Euphrates was brutally crushed by the Mongols in 1258. The advancement of the Mongols into Iraq at that particular time can be traced to the actions of Louis IX of France, who had sent a Crusade to Egypt on the assumption that Eljigidei, in control of Persia, had turned Christian and that the French from Egypt and those Mongols from Persia could crush the Moslems between them. Unfortunately, the Mamluk Baibars forced the starving French army to surrender and Mangku, the Supreme Khan after 1251, ordered Hulegu, a grandson of Genghis, to advance through Syria to Egypt. Syria had refused to be governed by anyone not descended from Saladin and had crowned al-Nasir, King of Aleppo, as their independent sultan. But Hulegu began the bombardment of Baghdad on January 1, 1258, and by February 13th the city was sacked and the Moslem population massacred. Some Christian soldiers from Georgia, who had joined forces with Hulegu, took part in this with relish. The caliph and his sons were sewn up in carpets and trampled to death by Mongol horses. Finally the Mongol armies, themselves, were forced to abandon the city because of the stench of the corpses. It is of interest that Hulegu was a Buddhist, his favorite commander, Ked-Buka, was a Christian and so was his senior wife, Dokuz-Khatun, a Nestorian. (Ref. 3)

After Baghdad fell, Aleppo and Damascus sent word of surrender. It was at that time, however, that Mangku, the Supreme Khan, died of dysentery and Hulegu withdrew his army to Azerbaijan and the Syrian campaign was cancelled so that Islam was saved (A.D. 1259). Hulegu left for Mongolia, leaving Ked Buka in charge and it was the latter, with the remnants of the Mongol army that was defeated by the Mamluks at Ain Jalut, outside of Nazareth in 1260. The Mamluks were helped by a few Christians and a few tumen from the Golden Horde from Russia. But even with that defeat, Hulegu's soldiers stayed in Iraq and after his death in 1265 that area was ruled by his son, Abaka, who sent ambassadors to Europe several times to ask for a combined Christian-Mongol attack on Baibars, the Turk of Egypt. Finally Pope Gregory X replied that a campaign

against the Moslems would be made within three years but it didn't materialize and in the meantime the Mongols lost control of Damascus. The last Christian garrison in Syria, at Crak des Cheoaliers, surrendered to Baibars in 1271 and the now militant Hospitallers moved to Cyprus and then to Rhodes. (Ref. 4, 5, 6)

After the sacking of Baghdad the entire Mesopotamian irrigation system was abandoned, never to be rebuilt and the productivity of the land shrank accordingly. In all fairness, however, it should be known that epicurean indulgence, physical and mental exhaustion, military incompetence and cowardice, religious sectarianism and obscurantism, political corruption and anarchy had all initiated a piece-meal collapse before the external attack of the Mongols. The raising and salination of the water table subsequent to over-irrigation may have done more to hasten Mesopotamia's decline than Hulegu's visitation. (Ref. 7)

The problem of the elevation of the fields above the canal levels as a result of centuries of silting was still another factor and this could be solved only by vast new canal construction on a scale and with a technical complexity which only a centralized administration could carry through. These things and not a change of climate turned western Asia from world leadership to destitution and from a hundred teeming and cultured cities in Syria, Iraq and Persia into the poverty, disease and stagnation situations of modern times – at least up to the late 20th century domination of Near East oil . In Toynbee's classification (Ref. 8) the Mongols, who came and went all within about 40 years, administered the *coup de grace* to the old Syriac Society. Former agricultural fields now again became grazing lands, all tending to restore a certain nomadic element in the Islamic culture. (Ref. 9)

Prior to 1295 the Mongols had favored Christianity over Islam, possibly for political reasons in an attempt to hold this minority group. After conversions of the Khan and his entourage to Islam, Christians were further subjected to massacres, forced mass conversions and various indignities, so that Christian communities in Iraq and Syria lost their importance. Only a few mountainous refuge areas remained solidly Christian after 1300. The Jews survived more successfully than the Christians.

After the battle of Ain Jalut, the Mamluks ruled Syria for almost 250 years. In spite of foreign domination and the decline in general, mentioned above, Syria still maintained some semblance of culture,

with well maintained hospitals, including some for the insane and they treated all ophthalmological diseases with skill, including fine cataract operations. After this 13th century, however, Syria definitely waned.

IRAN: PERSIA

Early in the century the people of the western fragment of the Shahdom of Khwarizm were pushed into Persia by the Mongols, but shortly thereafter a young shah rallied them and seized Azerbaijan and Georgia. This new shahdom was short-lived as a new Mongol advance extinguished it in 1231. The Assassins of Alamut were annihilated in 1256. Although some say that 2/3rds of Iran's population was killed by the invading Mongols, still, Persia fared better than the other countries of the Near East. After Ogedei's death, the Mongol Empire continued to expand in Persia through the campaign of Baiju and Hulegu, brother of Kublai, who founded a new Persian Il-Khan Dynasty in northwestern Persia, with a capital at Maragha. The greatest ruler of this dynasty was Ghazan Khan, scholar and administrator, whose reign gave great prosperity and culture. Chancellor Raslidu'd Din Fadu'llah, perhaps of Jewish parentage, was an administrator, scholar and physician, who established a great university city for the development of all the arts, crafts and sciences, bringing students and teachers from all over the world. Of the same era was Hafiz (meaning "remember"-given the name because he had memorized the entire Koran) – a fine poet, who was concerned with wine, women and song. Tabriz was a glorious city of 1,000,000 people at that time. In 1295 the Khan of Persia espoused the Moslem faith, after first flirting with Nestorian Christianity. It was in this century that there was the first mention of a Bakhatiyari tribe (probably Kurdish) in the Zagros mountains but it did not become a real force in Iranian history until the 18th century, when we shall meet them again. (Ref. [10](#), [11](#), [12](#), [13](#))

ASIA MINOR: ANATOLIA

TURKEY

Although Byzantine still dominated the immediate area of the Bosphorus Strait as the century opened, the Seljuq Turks ruled most

of the other regions now known as "Turkey". In addition to the small area about the straits, Byzantine controlled a small area of eastern Greece, southern Macedonia and a small area of coastal Anatolia. The latter soon went to the Venetians, however, when while carrying the 4th Crusaders, they took all the islands on the trade routes. The swordsmen of this 4th Crusade seized and ravaged Constantinople itself and then when the Mongols administered a crushing defeat on the Seljuq forces at Kose-dagh in 1243, there was very little central authority left. Then, for the first time, the Greeks had a majority in the shrunken empire. The little Kingdom of Nicaea eliminated the Latins from Asia about 1223 and then the Greeks teamed up with Venice's enemy, Genoa, to drive out the remaining westerners by 1261. An earthquake of 1268 which killed about 60,000 people in Cilicia added to the confusion. (Ref. [14](#), [15](#), [16](#))

NOTE: Insert Map 52. The Byzantine Empire 1265

It was into this shattered land of Anatolia that the beginnings of a new empire emerged. Although somewhat shrouded in legend it appears that about 1288 or 1290 Othman (or Osman) became the ruler of a small offshoot Turkish band from the Seljuqs from Khurasan, who had settled in a barren part of northwest Asia Minor. Far removed from the real Seljuq center of power, these Turks depended only on their stubborn dedication to Muslim causes and on their military prowess for survival. Under Othman and his son, the tribe prospered and gradually began to take territory away from both the Seljuqs, proper, and Byzantium. They were subsequently known either as Ottomans or Osmanlis.^{[1](#)}

[1](#)

The Latins of the East (Romania) replaced the Greek Empire at Constantinople from 1204 to 1261. (Ref. [17](#)) After 1204 waves of Italian merchants arrived both in the city of Constantinople and on the shores of the Black Sea. Shopkeepers and notaries followed. (Ref. [18](#))

ARMENIA

The Armenian civilization continued chiefly in Cilicia, or Little

Armenia. In 1247 the Sultan of Rum and the Christian king of Cilicia, Hayton I, became Mongol vassals. But the Egyptian Baibars started an attack in 1275, driving through Little Armenia and to Rum, there to defeat a Mongol army in the mountains, thus eliminating Mongol control. (Ref. 19)

1

[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

2

[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

11

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[70] GARTHWAITE, G.R., "The Bakhtiyari Tribe: Its Organization and Role in Iran". National Geographic Societv Research Reports Vol. 12, 1971 Projects, pp. 257-266. (National Geographic Society Publications, 1980).

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14

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[119] LANGER,WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952).

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[27] CHAMBERS, JAMES, The Devil's Horsemen. (Atheneum, N.Y., 1979).

The Near East: A.D. 1301 to 1400

THE NEAR EAST

ARABIA AND JORDAN, COASTAL AREAS OF ISRAEL AND LEBANON, & IRAQ AND SYRIA

Although McNeill (Ref. [1](#)) describes an homogeneous, organizational pattern and technique of trade which had been established all across the southern seas from the south China coast to the Mediterranean, the greater part of the Near East remained stagnant and unproductive. The decline of the irrigation works and the shift of the trade routes from the land to the sea had weakened the cities of Iraq and the centers of the Muslim society lay both farther west in Egypt and farther east in Persia. (Ref. [2](#)) On the political side, the greatest episode of the era was Timur's conquest of Baghdad, in which his troops killed 90,000 people and erected 120 columns of their severed heads. (Ref. [3](#)) More details of Timur's expeditions will follow in subsequent sections.

At Damascus, a fine physician, Ala'al-din ibn al-Nafis, expounded a theory of the pulmonary circulation of the blood 270 years before Servitus did-so in Europe.

IRAN: PERSIA

One of the most striking changes in the first half of the century in the Near East was the disappearance of the Khanate of Persia and its subject Seljuq Sultanate of Iconium and their replacement by a variety of petty states. In eastern Persia there were native provincial governments, while the diminished central power remained with the Mongol dynasty of the Jalayrids. Just north of the Persian Gulf was the Muzaffarid Emirate. (Ref. [4](#)) Even so, the Muslim culture of the east was productive, with the art of the miniature and a new

architectural style. The Persian language, revived in an Islamic form, was the medium of great poetry. (Ref. 5) As the century ended the conquests and raids of Timur resulted in his complete control of the country.

ASIA MINOR: ANATOLIA

TURKEY

The shrunken Byzantium was ruled by Michael IX and his father Andronicus as co-emperors, as the century opened. Antagonism with the Italians continued, so that in 1302 Andronicus hired Roger de Flor and his 6,000 Catalan mercenaries (The Catalan Company) from Barcelona, equipped with crossbows, to fight against those Italians who were in Constantinople. About 3,000 of the latter were killed and the Catalans then went on a rampage of their own through the Balkans. (Ref. 6)

As in Persia, throughout Anatolia there was a breakup of the previously ruling powers. The Seljuq Sultanate of Iconium, which had ruled the entire eastern portion of the peninsula under Persian suzerainty, gave way to a group of petty states. The Emirate of Karamanian, bordering on the Mediterranean corner, was at first the strongest but then all of the Byzantine Asia was conquered by the emir of Kastamuni, the six emirates of the southwest coast and finally the Ottoman sultanate on the northwest corner. (Ref. 7) The Ottoman capture of Bursa in 1326 was followed by the fall of the remaining Byzantine strongholds in the area so that by the middle of the century Byzantium existed essentially only on the European side of the Marmara Sea and a small portion of Greece. (Ref. 8)

NOTE: 53. The Byzantine and Ottoman Empires 1355

The Ottoman Turks continued to gain territory, crossing into Europe and gaining mastery of the Balkans as well as dominating the Anatolian princes. Their sultans, on assuming the throne, regularly practiced fratricide to remove potential claims to the crown. Later this was actually allowed by law, a practice they may have inherited from the Byzantines, themselves. Sir Mark Sykes, in *The Caliphs' Last Heritage*, stated:

"The relations between the Ottoman Sultans and the Emperors

has been singular in the annals of Moslem and Christian states. The Turks had been involved in the family and dynastic quarrels of the Imperial City, were bound by ties of blood to the ruling families, frequently supplied troops for the defense of Constantinople, and on occasion hired parts of its garrison to assist them in various campaigns; the sons of the emperors and Byzantine statesmen even accompanied the Turkish forces in the field, yet the Ottomans never ceased to annex Imperial territories and cities both in Asia and Thrace."¹

By the end of the century the Ottomans already had 12,000 Janissaries, chiefly from the Balkans. (See UPPER BALKANS, this chapter). It was at that time, too, that Timur invaded from the east and at Sivas, Turkey, he had 4,000 defenders buried alive, after a promise not to shed blood if they surrendered. (Ref. 10)

ARMENIA

We noted in the last chapter that the Armenian civilization remained chiefly in Cilicia, or Little Armenia, but even there it was under attack by the Egyptian forces and by 1375 even this small area was completely conquered and destroyed by the Mamluks. The few Armenians who were not slaughtered scattered throughout the Near East. To add further insult, in 1386 Timur seized the original, Greater Armenia and massacred most of the people there. (Ref. 11)

1

[279] MCNEILL, WILLIAM H., The Pursuit of Power. (University of Chicago Press, 1982).

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[108] JORDON, ROBERT PAUL. "Sri Lanka", National Geographic 155: 123, Jan. 1979.

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[71] GEARY, DOROTHY, "Mighty Tamerlane became Master of Half the World", Smithsonian Sept. 1979, page 89.

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1. As quoted by Wells, (Ref. 9), page 568

The Near East: A.D. 1401 to 1500

THE NEAR EAST

ARABIA AND JORDAN

In this period there were some independent nomad kingdoms along the northeastern periphery of the Arabian Peninsula on the Persian Gulf coast, but they were not important. The western, Red Sea coast was controlled by the Egyptian Mamluks. Coffee was first introduced as a beverage in Aden, in this century. (Ref. [1](#))

COASTAL AREAS OF ISRAEL AND LEBANON

The entire Mediterranean coast was controlled by the Mamluk Sultanate of Egypt. (Ref. [2](#)) Huge cannon, using balls of stone, helped the Turks batter down the walls of those Christian cities which had resisted them for 100 years. Slavery was prevalent in the entire area. (Ref. [3](#))

IRAQ AND SYRIA

This part of the Near East was becoming a back-water. At the opening of this century Iraq and Syria were part of the Timurid Emirate, but in 1408 Timur set up the separate Emirate of White Sheep Turks in this region and eastern Asia Minor, to counteract the Emirate of Black Sheep Turks, who had seized Persia. In 1410 the latter group took over the entire region, confronting the Timurids on a line running south of the Caspian. By 1467, however, the White Sheep group again conquered the entire area of Mesopotamia and Persia, pressing hard on the failing Asian Timurid Emirate of Herat. (Ref. [4](#))

IRAN: PERSIA

As the century began most of Persia was ruled by Shah Rukh, 4th son of Timur, with a reign of splendor and many successful campaigns against the Turkoman Dynasty of the Black Sheep to the northwest. The western part of Persia fell to the Black Sheep in 1408, however, and they dominated their rivals, the White Sheep Turks, who had been set up against them in Anatolia by Timur. Pushed on the west by the Ottoman Sultanate the people of the White Sheep re-grouped in 1467 and vanquished their "Black Sheep cousins" on the eastern border, taking essentially all of Persia and challenging the expiring Timurids in lower central Asia. (Ref. [5](#)) Their leader was Uzun Hasan.

ASIA MINOR: ANATOLIA

TURKEY

Early on in the century Byzantine was confined to Constantinople across the straits, while the Ottomans held almost the entire peninsula. After their defeat at Ankara by Timur, however, the Ottoman Empire under Bayezid I, shrunk, as Timur simply set up several Anatolian emirs, establishing the Emirates of Kastamuni, Karaman and the White Sheep, among other lesser ones. (Ref. [6](#), [7](#)) The sons of Bayezid I fought each other for a decade, so the reconstruction of the Ottoman state fell to Mehmed I (1413-21) and his son Murad II (1421-51), culminating in the reign of Mehmed II (1451-81). After capturing Constantinople in 1453 the Ottomans had established a true empire, contemporary with the Habsburg. The Turks used improved cannons, cast on the spot, in the capture of Constantinople, but the craftsmen who made them were Hungarian. Latin Christian gun-makers had achieved a technical lead over all others. (Ref. [8](#)) The Ottoman was the last of the great universal empires of Islam, overlying the Abbasid and Seljuk, with some Mongol influence via the Ilkhanids of Persia. They saw themselves as Ghazis – fighters for Islam against polytheists. (Ref. [9](#)) By the end of the century this sultanate had once again conquered almost the entire peninsula, touching the Kingdom of Georgia on the east bank of the Black Sea and confronting the Emirate of the White Sheep Turks on a line running almost south from there to the Mamluk territory on the eastern

Mediterranean coast. At the same time they drove the Genoese out of the Black Sea, occupying their trading posts in the Crimea, particularly Kaffa (1479). (Ref. [10](#), [11](#))

The Ottoman armies were made up of three elements: Moslem cavalymen, who lived on their estates in winter and joined the sultan for summer campaigns; slave families, which were actually a vast educational establishment for the conversion of Christian boys into champions of Islam; and finally Christian auxiliaries, many Rumanian, under their own princes. It is interesting that some feel that the capture of Constantinople was actually the downfall of the Ottomans, as witness this quotation from Sir Mark Sykes¹:

"To the Turks the capture of Constantinople was a crowning mercy and yet a fatal blow. Constantinople had been the tutor and polisher of the Turks.---the markets died away, the culture and civilization fled, the complex finance faded from sight and the Turks had lost their governors and their support. On the other hand, the corruptions of Byzantine remained, the bureaucracy, the eunuches, the palace guards, the spies, the bribers, go-betweens,---all these the Ottomans took over and all these survived in luxuriant life. The Turks, in taking Stambul, let slip a treasure and gained a pestilence."

ARMENIA

Armenia had no independent existence at this time but some Armenians settled in the north of Syria around the mountains of Jabal Aqra (Roman-Mount Cassius) where some 2,000 still remain today. Others scattered to Turkey and other adjacent lands. (Ref. [13](#))

[1](#)

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

[2](#)

[9] BARTHEL, THOMAS S., "The Talking Boards of Easter Island", Scientific American, 236:116-133, March, 1977.

[3](#)

[213] THOMAS, HUGH, A History of the World. (Harper & Row, Publ., New York, 1979).

[4](#)

[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History.

(Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[279] MCNEILL, WILLIAM H., The Pursuit of Power. (University of Chicago Press, 1982).

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[137] MCEVEDY, COLIN, The Penguin Atlas of Medieval History. (Rupert Hart-Davis and Crowell-Collier, U.S.A. 1978).

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[292] BRAUDEL, FERNAND, Civilization & Capitalism - Volume II, The Wheels of Commerce. (English translation by Sian Reynolds), (Harper & Row, Publ., New York, 1982).

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[229] WELLS, H.C., An Outline of History. (Garden City Books, 1956).

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[118] FAY, HOWARD, "Syria", National Geographic 157: 485-511, Apr. 1980.

1. As quoted by H. G. Wells (Ref. 12), page 570

The Near East: A.D. 1501 to 1600

THE NEAR EAST

ARABIA AND JORDAN & MEDITERRANEAN COASTAL AREAS OF ISRAEL AND LEBANON

Nominally all of this area went from Mamluk control to the Ottoman Turks between 1516 and 1517. Even North Yemen was occupied by the Turks from this century off and on until 1918, but they were able to exercise only nominal sovereignty over the many tribes. (Ref. [1](#)) Portuguese attempts to get a monopoly on the spice trade by seizing Aden on the tip of the Arabian Peninsula and thus prevent the Red Sea-Cairo-Alexandria trade route, were unsuccessful. (Ref. [2](#))

IRAQ AND SYRIA

It was in Aleppo and Damascus that Selim I defeated the Mamluk troops allowing the Ottoman advance on the Mediterranean coast and into Egypt, so that all of that part of the Near East came under his control. (Ref. [3](#))

IRAN: PERSIA

As the century opened Persia was a mass of small kinglets, the Timurid Empire having collapsed. By 1502, however, Shah Ismail I united the country, founding the Shi'ite Safavid Dynasty, combining an audacity with a religious appeal to accomplish this feat. This Shi'ite (or Shiah) variation of Islam was not new, but never before had it been the fundamental focus for an entire nation. It has remained the state faith of Iran up to the present time, recognizing no rightful caliphs but Ali and his 12 lineal descendants, and in a

sense, representing a split off the orthodox Moslem Sunnites somewhat like the split of the Protestants from the Catholic church in the Christian world. The Persian language became the basic tongue of this new Islamic society. The Safavid soldiers were fanatical in their religion, bursting out of a small territory south of the Caspian Sea and beginning their clash with the Ottoman Selim I by 1514. This pressure on the Turks' rear may have saved Christendom from further Turkish advances, but this violent split of the Moslem sects was one of the three most important setbacks to the Moslems, as a whole. Other factors were the Iberian Crusade against them and the administrative consolidation of Moscovy, which prevented the advance of the Moslem Khanates of the western steppe.

Safavid art in textiles, rugs and books was unparalleled, but the Long Wars against the Turks, extending from 1518 to 1590, weakened the administration which was only partially restored by the advent of Shah Abbas I the Great, a man of broad outlook and strong will, although personally exceptionally cruel. He moved the capital to Isfahan where he built many palaces, mosques, gardens and bridges, to the delight of its 600,000 people. He had 80,000 horses in his cavalry. This shah made peace with the Turks in 1590 in order to deal with the Uzbeks, who had been invading along the Iranian-Central Asian border in Khorasan for many years. Of incidental interest is the fact that about 1562 Anthony Jenkinson of the English Moscovy Company, reached Persia overland through Russia and opened commercial relations between East and West. (Ref. 4, 5, 6, 7)

ASIA MINOR

TURKEY

Selim I, the fanatic Sunnite Ottoman Turk leader, first slaughtered 40,000 of his own subjects who were Shi'ites, then attacked Persia - and conquered Mesopotamia⁹ along with Syria, Arabia and Egypt. By capturing the high priest of orthodox Mohammedism, the sultans, like Henry VIII, became masters of the church as well as the state. Under Suleiman I (1520-1566) the Ottoman Empire reached its greatest extent and started its long decline. With 25,000,000 people it had twice the population of any European nation except France. The Turks were dominant in their chiefly Moslem empire,

but there were also millions of Christians, including Greeks, Serbs, Hungarians, Bulgars, Walachians and Moldavians. This same area today contains 21 modern nations plus large areas of the United Soviet Socialist Republic's Ukraine, Crimea, Caucasus, Armenia and Georgia. All of those domains were allowed fairly independent rule, but were subject to Constantinople and had to pay annual tribute. The Stamboulyol was a carriage road from present day Istanbul to Belgrade via Sofia, an indication both of the new importance of carriages and the extent of European Islam. (Ref. 8) Suleiman, himself, was a man of gracious manners, temperate and either he or his vizier, Ibrahim Pasha, had sufficient administrative ability to make this reign equal to or greater than that of any ruler of his time. In the early part of his term his direct subjects numbered perhaps only 14,000,000, while Spain had 5,000,000 and England 2,500,000. Continuing wars on the European mainland with the Habsburgs and the wars against Shi'ite Persia debilitated all sides, but Suleiman persisted, taking the remainder of Hungary and actually advancing to the gates of Vienna. A Turkish fleet took Rhodes and was active along the Italian shores, only to be finally chased away by a Genoese fleet under Andrea Doria. When the Hungarian campaign ended with Ferdinand of Hungary making his country an actual Turkish province in 1540, the Turks returned to Asia Minor and forged on eastward to the Persian border to take Tabriz. Later local rebellions in Hungary caused Suleiman to return there, where he died in 1566, in another siege, leaving his empire in dynastic and religious troubles. His successor, Selim II, was a drunkard. (Ref. 9, 10)

In 1571 the Christian world rejoiced prematurely at the victory of Lepanto, where an Ottoman fleet was defeated by ships of a new Holy League, composed primarily of Spain and Venice. Actually it was at least a century thereafter before any serious alteration in the political balance took place. The entire government administration, including the post of the grand vizier, was filled by a specially trained group of originally Christian boys who were brought up as Moslems and were, in essence, educated slaves. The famed infantry Janissaries were of the same origin. In 1585 the empire supposedly had 40,000 military horses in Asia and 100,000 in Europe. This Turkish cavalry, the Sipahis, long remained superior to anything in Europe, proper. After 1585, however, the empire did decline due to the degeneracy of the sultans, perhaps augmented by syphilis in the

royal family and added to by the growth of corruption and harem influence, the emergence of governing cliques of Jews, Greeks and others and the inevitable decline of the Janissary corps. There was rising taxation and yet a decrease in the treasury. (Ref. [11](#)) At its peak the Ottoman civilization had an agriculture and science as good as their contemporaries in the west; it was the merchants that were not as advanced. Constantinople, with a population of approximately 700,000, got sheep from the Balkans and grain from Egypt and the Black Sea, which had become the Ottoman's private property. Even so, it took harsh management by the sultan's government to prevent shortages and great famines. (Ref. [12](#))

The people of Asia Minor were gentle and generally kind, except in war, when they could be brutal. They had fine personal courage and stamina. While there was much bribery of officials, in general law and order was well maintained. Polygamy, concubinage and homosexuality were all common. Social life was unisexual, with the women remaining in the harems. Popular education was neglected but there were many excellent poets and artistic abilities were manifested in painted tiles and rugs and the construction of mosques. Up through this century, the oldest son of the royal family, on inheriting the throne, would have all his brothers strangled to remove all threats to his position. In accord with this, at the end of the century Mehmed III strangled 19 brothers and 7 of his father's pregnant concubines, as he assumed the throne. Toynbee (Ref. [13](#)) feels that the Ottomans supplied a Universal State for the Orthodox Christian Society, which they were unable to supply for themselves. The idea is at least unique. (Ref. [14](#), [15](#), [16](#))

The two major opponents of the Ottomans in the last of this 16th century were the Austrians and the Turcoman Confederation, remnants of the Uzbeks, in the region around Lake Van. Concerning the first, although the Turks won initial victories, they faced disciplined, infantry gunfire with new European equipment and in the end were defeated.

ARMENIA

Armenia did not exist, as such, at this time. Both the basic Armenian territory and lesser Armenia in Cilicia were all under Turkish control, with the Armenian people pretty well scattered. Along with Jews, the dispersed Armenians became the basic merchants throughout the Middle East. They eventually colonized-

the whole of Persia, working out from their base in Jula, a vast suburb of Isfahan, where Shah Abbas the Great had initially confined them in this century. They were also active in Malta at this time. (Ref. 17)

1

[82] GROVE, NOEL, "North Yemen", National Geographic 156: 244, Aug. 1979.

2

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

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[119] LANGER, WM. L. (Editor), Encyclopedia of World History. (Houghton Mifflin Co., Boston, 1952).

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[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

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[135] MAZOUR, ANATOLE G., Russia, Tsarist and Communist. (D. Van Nostrand Co., Inc. Princeton, New Jersey 1963).

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[131] MASSIE, ROBERT K., Peter the Great. (Alfred A. Knopf, New York, 1980).

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[220] TOYNBEE, ARNOLD J., A Study of History. An abridgement in two volumes by D.C. Somervell. (Oxford University Press, New York & London, 1957).

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[68] GARRATY, JOHN A. AND GAY, PETER, (Editors), The Columbia History of the World. (Harper & Row, New York, 1972).

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[140] MCNEILL, WILLIAM H., Plagues and Peoples. (Anchor Press/Doubleday, Garden City, New York 1977).

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[131] MASSIE, ROBERT K., Peter the Great. (Alfred A. Knopf, New York, 1980).

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[292] BRAUDEL, FERNAND, Civilization & Capitalism - Volume II, The Wheels of Commerce. (English translation by Sian Reynolds), (Harper & Row, Publ., New York, 1982)

The Near East: A.D. 1601 to 1700

THE NEAR EAST

THE ARABIAN PENINSULA, THE MEDITERRANEAN COASTAL AREAS, & IRAQ AND SYRIA

The Turkish Ottomans continued their rule over almost all of this area. Some Europeans came back from the East Indies to settle in Mocha and Jiddah on the Arabian Red Sea coast, but otherwise there was little change on the peninsula. Intermittent warfare was waged with the Safavid Dynasty of Persia, but trade across the region continued. There was tremendous profit in spices and war was not to interfere with that. 3,000 tons of spices bought in the East Indies for the equivalent of \$227,603 could be sold for \$1,972,920 at Aleppo, Syria. (Ref. [1](#))

IRAN

Rejuvenated under Shah Abbas I, the Safavid dynasty wrested Baghdad and the Armenian border provinces away from the Turks, and there were some periods of tranquility, with progress in the arts and crafts. Beautiful, strong horses were plentiful and some were moved in caravans of 1,000 at a time. They were reserved for warfare or treated as luxuries with harnesses of silver, gold, and precious stones. Rather than use them for communication, human runners called “chatirs” were utilized. These runners were specially trained for the job from childhood and they were often of the road for 30 to 40 hours at a time. (Ref. [2](#))

The Shia fanaticism faded somewhat, at least in the court, and a lasting peace was finally concluded with the Ottomans in 1639. When Abbas’ grandson Shah Safi came to the throne, however he began to distinguish himself with wholesale executions. It was the

beginning of “harem rule” in Persia, initiating a period of rapid decline. The Turks re-won Baghdad and the Cossacks raided on the Caucasus front.

The customs and dress of the ordinary Persians changed little over the centuries. Braudel (Ref. 3) quotes Chardin, after living 10 years in Persia, in 1686:

“I have seen Tamerlane’s costume, which is kept in the treasury of Ispahan and it is cut exactly like the clothes worn here today, without any different—dress in the East is not subject to fashion...”¹

The same might be said of their cities. In spite of some degree of culture manifested in advanced arts and crafts, the streets of Ispahan remained without any type of paving, dirty in the summer and muddy in winter. Dead animals, blood from butchered ones, and human excrement increased the filth. An Italian visitor at the end of the century wrote that the humblest house in Palermo was better than the best in Ispahan. (Ref. 5)

ASIA MINOR

TURKEY

Constantinople, with 700,000 people, was larger than any city in Europe and needed all the Balkan sheep, Egyptian rice, beans, and corn, Black Sea grain and wood, and Anatolian oxen, camels, and horses to support it. It required all empire manpower as well as Russian slaves brought in to the slave market of Besistan. (Ref. 6) The sultan himself had 5,000 servants. After Suleiman I (in the last century) the sultans did not marry, basically to keep official wives from meddling in the state and the sultan’s mother became the ruler of the harem. The harem women were technically slaves and as Moslem women could not be enslaved, all these women were foreigners – Russians, Circassians, Venetians, Greeks, and especially women from the Caucasus, where there were many blue-eyed beauties. Originally the eunuchs were white and they came also chiefly from the Caucasus, but at the beginning of this century blacks were used. Since castration was also against Moslem law, these black boys were castrated by Coptic Christians near Aswan as they were brought up from deeper Africa. In theory, these eunuchs, too, were slaves, but they often gained great power because of their proximity to the sultan. As weak, sexually depleted sultans

appeared, the Grand Vizier and the Chief of the Black Eunuchs, the “Aga of the women” became the real power in the empire. (Ref. 7) At the beginning of the century the new Sultan Ahmed I refused to strangle his brothers, as had been the custom, and simply locked them up in “the cage”, cut off from the rest of the world. Thereafter, occasionally when a sultan died without male issue, one of the brothers would be brought out of the cage to the throne, knowing nothing. Then the grand vizier would rule.

After signing a peace treaty with Austria in 1606, the Turks fought with Persia and lost Azerbaijan and Georgia. There was a long war with Venice (1645-1660) occasioned by Turkish designs on Crete and again the Ottomans lost, perhaps because of outdated weaponry. A Portuguese ship which was attacked by a Turkish galley in 1603 reported that it was “covered with arrows, up to the topmast.”² All through this century, the Ottomans competed with Venetians for the mercenary services of Christian infantrymen of the western Balkans. (Ref. 8) Only in cavalry did Turkey seem to have an advantage. The empire had 40,000 horses in Asia and 100,000 in Europe, while hostile Persia had about 80,000. (Ref. 9) It is probable that the loss of Ottoman manpower and money in their 16th century military excursions, plus the effect of inflation after 1584 and the continuing rising population with a shrinking economy, produced an internal crisis in the early decades of this 17th century. (Ref. 10)

With the empire near collapse, a temporary restoration of power was promoted by the Albanian grand vizier, Muhammad Korprulu, his son Ahmed, and his brother-in-law Kara Mustapha, covering the period from 1656 to 1683. During that interval, in response to a Hungarian appeal for aid against the Emperor Leopold, Kara Mustapha again took an army of over 200,000 to the walls of Vienna. When the attack finally failed due to a coalition of Bavarians, Saxons, and Poles, led by John III Sobieski, Kara was strangled on order of the sultan and after this the empire began again to disintegrate, as both Buda and Belgrade fell. Kara’s fate was typical of the tenuous power of the grand viziers in the last of the century. Between 1683 and 1701 some 12 of these came and went. (Ref. 12)

The Treaty of Carlowitz of 1699 by which most of Hungary was surrendered to Austria marked a turning point in the European-Islamic military balance. Other factors also aggravated the crisis in

the Ottoman state. New sea routes to the East left the great Ottoman markets stranded in a backwater. (Ref. 13) New World silver swamped the Turkish economy, cutting the value of the standard Ottoman coin to 50% of its former value, precipitating uncontrollable inflation. The Janissaries, who had reached 51,647 in number in this century, were already deteriorating due to the admission of free Moslems to their ranks in the previous century and the carefully trained slave-militia was no more. (Ref. 14)

ARMENIA

Throughout all of the Ottoman activity the Anatolian peninsula was honeycombed with trade routes established by Armenian merchants working out of the original Julfa in what was formerly Armenia and from their transplanted New Julfa out of Ispahan, peopling the monsoon ships, commission agents with dealings in Turkey, Russia, Europe, and the Indian Ocean. From their exile center in New Julfa, some traveled to Patna, Nepal and even Lhasa, Tibet. In each city they could be received and assisted by fellow Armenian merchants. Europe, too, felt the impact of these men. In Moscow they handled raw silk from Persia, From permanent settlements there they traveled overland to Sweden, where they met countrymen coming up with other merchandise from Amsterdam. Poland, Germany, England, France, and Venice were all “invaded” by these businessmen. There was a little Armenian colony at Lwow in Poland, with its own printing plants. The master of regular, trading caravans from Poland to the Ottoman Empire was always an Armenian. (Ref. 15)

1

[211] TANNAHILL, REAY, Food in History. (Stein & Day, New York 1973).

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[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981).

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[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[292] BRAUDEL, FERNAND, *Civilization & Capitalism - Volume II, The Wheels of Commerce*. (English translation by Sian Reynolds), (Harper & Row, Publ., New York, 1982).

1. As quoted by Braudel (Ref. 4), page 323, from Chardin, *Voyage en Perse et aux Indes orientales*, 1686, Vol. IV, page 1

2. Quotation from Braudel (Ref. [11](#)), page 293

The Near East: A.D. 1701 to 1800

THE NEAR EAST

ARABIA AND JORDAN

Differing in language and cultural background, the Arabs of the peninsula began to give the Turkish Ottoman rulers troubles. In the far south Abdul Wahhab (Muhammad ibn Abdulwahhab), a Moslem fundamentalist, called for the re-assertion of the original Moslem truths and soon joined forces with the emir, Muhammad ibn Saud, to conquer central Arabia as the Wahhabi Empire, a precursor of present day Saudi Arabia. (Ref. [1](#)) This empire combined brigandage and pillage with preaching.

Until 1720 the English and Dutch East India Companies had to go to Mocha, Yemen, for coffee beans, but in that year the Dutch discovered that they could get coffee in Java and then Ceylon, while the English found it could be grown in the West Indies. (Ref. [2](#))

MEDITERRANEAN COASTAL AREAS & IRAQ AND SYRIA

All these regions remained more or less docile under the Ottoman yoke.

IRAN (PERSIA)

Persia in this century was squeezed between an aggressive group of Afghans in the east, the Turkish Ottomans in the west and the Russians in the north. It is of interest that in spite of political difficulties, trade apparently continued across the involved area. A document of 1708 says that camels carried loads of from 1,000 to 1,500 pounds between Tabriz and Istanbul. (Ref. [3](#)) In 1722 the

Afghan Mahmud defeated a central Persian army and made himself shah. He later went mad and instituted a reign of terror, massacring all Persian nobles and princes and many others. Russia and Turkey made an agreement to dismember Persia, but this plot was foiled by Nadir Kuli, another powerful chief of the Afshar tribe of Khorosan (part of Turkistan) by first defeating the Afghans that were in Persia and later defeating the Turks. In the end the Russians actually helped in this defeat of the Turks. In 1732 Abbas III, the last of the Safavid Dynasty, became the Persian Shah while still an infant, with Nadir still effectively in control. On the death of Abbas in 1736 Nadir became the shah, on the condition that the Persians renounce the Shi'a heresy. As a Turk by race, Nadir Shah was a Sunni, but he was never able to make this orthodoxy acceptable to the people.

Forty thousand northern Persians died in an earthquake in 1755. Intermittent wars, rebellions and assassinations continued until the end of the century. Aga Mohammed founded the Kajar (Qajar) Dynasty, but probably because of his brutal, avarice nature, he was assassinated within three years. In 1800 the British East India Company concluded a political and commercial treaty in which the British agreed to supply arms and money in the event of an attack by Afghanistan or France. (Ref. 4, 5)

ASIA MINOR

TURKEY

In spite of their weaknesses, or perhaps because of them, in November of 1710 the Ottoman Empire declared war on Russia, marching north from their secondary capital of Adrianople in Serbia, to be joined at the mouth of the Danube by Tatar cavalry, making a total of 200,000 men. (Ref. 6) In this instance the Russians under Peter the Great were overwhelmed and the czar had to buy his way out by the Treaty of Pruth (1711), in which Russia again gave up Azov. But throughout this century Turkey fought on the defensive against Persia and the Balkan groups, as well as having further wars with Russia. Substantial defeats between 1714 and 1718 finally stimulated the Turks to attempt to train troops in the European fashion, but this only led to a successful mutiny by the Janissaries, in 1730. (Ref. 7) In the end Russia gained great territorial areas around the Black Sea and in the eastern Balkans

and the Russians called Turkey the "sick man of Europe".

The Turks were at war for 41 of the 109 years between the siege of Vienna in 1683 and 1792, which was the end of the second Russo-Turkish war, involving Catherine 11 and the Treaty of Jassy. (Ref. 8) They progressively lost Hungary, the Banat (part of present Yugoslavia and Romania), Transylvania and Bukovina (west Ukraine and northeastern Romania), as well as the north shore of the Black Sea, including the Crimea. The real breakdown occurred in the 1760s when, because of Russian policies in Poland many Poles fled to Turkey, with the Russian troops right behind them. The Turkish Porte, backed by France, declared war, which became known as the First War of Catherine. The French involvement in the declining Ottoman Empire was imperialism disguised as friendship and Turkey became the first French protectorate. (Ref. 9) The Russian fleet in that war was officered by the British, who came from the Baltic to the Turkish coast, while the Russian infantry attacked by land. That war ended by the Treaty of Kuchuk Kainarji, only when Russia developed internal troubles with the revolt of Pugachev, of which we shall hear more later. But Russia obtained the right of free navigation in Turkish waters and many other concessions. The Second War of Catharine developed in 1787 as a result of Turkish intrigues with the Crimean Tatars.

As their military power declined the Ottomans had to rely more on conference and diplomacy to maintain their prestige and in this capacity the Phanariots rose to power. That was a Greek-Christian group, who had been living in a ghetto in a corner of Stamboul, where the Moslems had allowed a center of Orthodox Christianity to remain under the control of the patriarch. They became very powerful in the government and probably had visions of establishing a new Greek-Orthodox domain through the framework of the Ottoman Empire. Phanariot families controlled the Patriarchate of Constantinople and extended its jurisdiction over the formerly independent Serbian and Bulgarian churches. Istanbul had narrow, dirty streets and houses were usually of only one story, built of wood and bricks and were white-washed. Fire often did great damage. (Ref. 10)

ARMENIA

Although the geographical area of Armenia was still controlled by Ottomans and the Armenian people were dispersed widely, many of

the Armenian merchants and financiers played important parts in Constantinople and other Turkish cities. Some Armenian merchants traveled as far as Sining on the Chinese frontier to trade silver for gold, a very profitable operation at that time. Even Lhasa in Tibet and any number of cities of India were common "ports of call" for these business men. (Ref. 11) From the old Armenian homeland, itself, cantaloupe was taken to Europe. (Ref. 12)

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[292] BRAUDEL, FERNAND, Civilization & Capitalism - Volume II, The

Wheels of Commerce. (English translation by Sian Reynolds), (Harper & Row, Publ., New York, 1982).

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[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981.

The Near East: A.D. 1801 to 1900

THE NEAR EAST

The first cholera epidemic of the 1820s, coming out of India, went to Mesopotamia, Iran, Syria, Asia Minor and the Caspian shores. It was stopped only by a very severe winter in 1824. The next epidemic of the same disease occurred in the 1830s and was established at Mecca by 1831. Thereafter epidemics of cholera always followed the Moslem pilgrimages to Mecca until 1912. There were approximately 40 such epidemics in the Near East. (Ref. [1](#))

ARABIA AND JORDAN

Nationalist opposition to Turkish rule was aroused by a revival of the Wahabi movement, which was a reform within Islam. Its cause was strengthened by the adherence of the founder of the present ruling family of Saudi Arabia, into whose hands much of Arabia fell. Expansion of this Saudi kingdom was temporarily halted by the Ottoman Empire, but just after the turn of the new century in 1902, Abdulaziz captured Riyadh and reinstated the al Sauds to leadership, paving the way to unification.

Hejaz on the eastern shore of the Red Sea had Egyptian occupation from 1811 to 1840, then local rulers, the *sharifs* of Mecca, under Ottoman sovereignty until the next century. Bahrain, in the Persian Gulf, remained an independent sheikdom under the Al Khalifa family, but had British protection after 1820. Aden, at the southwest tip of the peninsula, was annexed by British from India for use as a coaling station in 1839 and following this British influence in the area gradually increased. Kuwait, at the head of the Persian Gulf, was an autonomous sheikdom under the al Sabah family, with the Ottomans still claiming sovereignty until the

British took it under formal protection after 1,899. Jordan remained passively under Turkish rule. (Ref. [2](#), [3](#))

MEDITERRANEAN COASTAL AREAS

A new colonization of the Palestine area from Europe began about 1,870. Although Lebanon was under Ottoman control, this area was permitted autonomy and powerful families rose periodically to rule. In one particular mountainous area lived the Druses, an off-brand Islamic sect who were fierce fighters and haters of Christians. In 1,841 and again in 1,860 they came down out of the mountains to massacre the Christian Maronites. Pressure from European powers had forced the Ottomans to grant still greater independence to "Great Lebanon", as it was then called. An American university was established in Beirut in 1,866. Printing had not attained significance in the Near East until this century, but now western books began to be translated into Turkish, Arabic and Persian.

IRAQ AND SYRIA

These two areas remained mainstays of the Ottoman Empire. Ibrahim Pasha, from Egypt, seized Syria from the Turks in 1,832 and 1,833, but later had to withdraw under European pressure. Some of the Druses also lived in Syria and although the massacres were in Lebanon they threw all Syria into an uproar.

IRAN: PERSIA

In Iran the Kajars (Qajars) continued as rulers throughout the century initiating a disastrous foreign and military policy, so that inroads were constantly made by western powers. Between 1,804 and 1,827 Russia defeated Iran in three wars, annexing Georgia and Azerbaijan. Iran's part of Afghanistan was also lost with the Treaty of Turkamanchai in 1,828 as Russia took over the entire foreign trade control and gradually thereafter gained control of the northern districts of Iran. The wild horsemen of Iran and Turkistan were no longer a match for armies equipped by European or even Chinese weapons. The British even fought a short Persian war in 1,856, but the Kajar Dynasty was not seriously challenged on that occasion.

Of political impact in this century were the three tribes of the Bakhtiyarl living in the central Zagros mountains and the adjacent northeast Khuzistan plain, in an area of approximately 20,000 square miles. This was and is a highly organized group, with leaders arranged in pyramidal fashion through the khans and finally at the top, the Ilkhani. Nasir al-Din Shah of the central Persian government conferred the title of Ilkhani by imperial decree. The holder of that title benefited greatly in wealth and prestige and in return saw that his people paid taxes and homage to the central government. But at the end of the century there was considerable squabbling and interchange of the position of Ilkhani between two families of the Bakhtiyarl. Finally it was agreed with support of Nasir al-Din Shah and the British that both families should be honored, one with the Ilkhani and one with an assistant Ilkhani to be called the "ilbigi". After the turn of the century, in the Persian revolution, the Bakhtiyarl used force against the shah, himself, although they still also quarreled among themselves¹ (Ref. 4, 5)

ASIA MINOR

TURKEY

The Turkish Empire was kept alive artificially during this century by Great Britain, France, Germany and Hungary as a bulwark against Russian advances to the straits. A series of weak sultans were kept on the throne, the last being Abdul Hamid II (1,876-1,909). Russia gained more Turkish territory between 1,806 and 1,812. In 1,818 the Turks had to put down temporarily the Wahabi Empire in Arabia by an expedition from, and with the help of, Egypt and then fight a similar revolt in Syria. Greece declared its independence in 1,821 and won it; the Phanariots were overthrown and the Turks doubted the loyalty of all Greeks, thereafter. The Janissaries were abolished in 1,826 because they were beginning to control even the viziers and the sultans. Nicholas I of Russia gained Georgia and the principal mouth of the Danube in still another Turkish war, terminated in 1,829 by the Treaty of Adrianople. Related to this, at a second conference in London, Greece was formally given its independence. Reforms in government were initiated by Mahmud II and in 1,839 even Christians and Jews were granted formal equality with Muslims.

The Crimean War (1,854-56) was still another one fought by

Turkey against Russia, but that time Turkey had western allies and Russia lost. Even so, in the Battle of Sinope in the Black Sea, new types of shells fired by the Russians completely destroyed the wooden fleet of the Turks, bringing two results - the realization by western powers that new armor was needed for warships and the bringing of Britain into the war to protect Constantinople. (Ref. 7) The campaign was a tragic one for the British, who lost ten times as many soldiers from dysentery as from Russian arms. It also showed up the deficiencies of traditional methods of supply, leading to a modernization of methods of management of armed forces. The Russians could not supply their forces adequately overland across the steppe, even though they had the largest land army in Europe. (Ref. 8) The Russians came back again in 1,877-78 in the Russo-Turkish War and this time the Turks were about to lose their entire empire. Actually the sultan had never really recovered from the Crimean War, because of the large public debt owed the Europeans for railroad construction, etc., and the formal guarantees of liberties forced by those allies. After that second war, the western allies met at the Congress of Berlin and forced Russia to give up much of its gains, but even then Turkey was left with only a portion of its former territory on the European side of the straits and much of that was still disputed by Russia. The bankruptcy of Turkey focused the need for revision of archaic and decadent institutions and led eventually to the revolution of the Young Turks in 1,908.

In this century Akif Pasha reformulated the Turkish language, developing a simpler vocabulary and style for Turkish prose and since then literary Turkish has been based on this work. (Ref. 9, 10, 11)

ARMENIA

Most of Armenia was still included as part of the Turkish Empire, but eastern Armenia, as we have seen, had been constantly disputed between Turkey and Persia for centuries. In 1,828 Russia acquired the region of present day Armenian Soviet Socialist Republic, from Persia. After the year 1,894, in the remainder of old Armenia, the Turk Abdul-Hamid II started a systematic plan for the extermination of the Armenian people.

[140] MCNEILL, WILLIAM H., *Plagues and Peoples*. (Anchor Press/Doubleday, Garden City, New York 1977).

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[6] AZZI, ROBERT, "Saudi Arabia: The Kingdom and its Power", *National Geographic* 158:286, Sept., 1980.

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[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

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[132] MASON, RONALD J., "The Paleo-Indian Tradition in Eastern North America", *Current Anthropology* 3, No. 33: 227-252, 1962.

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[70] GARTHWAITE, G.R., "The Bakhtiyari Tribe: Its Organization and Role in Iran". *National Geographic Society Research Reports Vol. 12, 1971 Projects*, pp. 257-266. (National Geographic Society Publications, 1980).

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[279] MCNEILL, WILLIAM H., *The Pursuit of Power*. (University of Chicago Press, 1982).

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[279] MCNEILL, WILLIAM H., *The Pursuit of Power*. (University of Chicago Press, 1982).

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[131] MASSIE, ROBERT K., *Peter the Great*. (Alfred A. Knopf, New York, 1980).

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[140] MCNEILL, WILLIAM H., *Plagues and Peoples*. (Anchor Press/Doubleday, Garden City, New York 1977).

11

[8] BARRACLOUGH, GEOFFREY (Editor), *The Times Atlas of World History*, (Hammond, Inc., Maplewood, New Jersey, 1978).

1. Much later in the 20th century, Mohammed Riza Shah's 2nd wife was a Bakhtiyari princess. (Ref. 6)

The Pacific

Geographical Presentation of The Pacific

The Pacific Ocean makes up one-half of the globe on which we live and if we exclude Australia, the total amount of land existing as islands in this massive amount of water is almost infinitesimal. Yet many of these tiny islands are of great interest because of the continuing controversies about the origin of their people and method of settlement. It has been impossible to show the entire Pacific on a diagrammatic map on the scale we have selected, so the large map on the second page ahead shows only essentially the south Pacific and omits the far eastern and western expanses, even then. The chief components of this geographical area will be outlined below.

AUSTRALIA AND THE PACIFIC ISLANDS

Because of the lack of space on the next page map, an additional, same scale drawing of Australia is shown below. After one records what little is known about the pre-history of this continent, as will be noted in the text, no more information is available until the 16th century C.E. when Europeans first visited the land.

The islands of the Pacific are usually divided into three groups. In the western side of the ocean, but north of the equator are the various groups of tiny islands, chiefly of coral origin, which are known collectively as Micronesia. Wake Island, the Marianas and the Caroline are examples of this group. Still in the western Pacific but south of the equator is Melanesia, so called because of the dark skins and Negroid features of the inhabitants. The Solomons, Hebrides and New Caledonia are examples of these basically volcanic islands. Finally, in the eastern half of the Pacific there is the so-called Polynesian triangle with the Hawaiian Islands at the

apex, New Zealand in the southwest corner and Easter Island at the southeast point. One must realize that, excluding New Zealand, making any dot visible to the naked eye on any large scale map, makes the land far out of proportion. In correct perspective, they should be only microscopic points.

Image not Finished

Map 1.1: Australia

Image not Finished

Map 1.2: The Pacific

The Pacific: Beginning to 8000 B.C.

THE PACIFIC

It is possible that between 50,000 and 70,000 years ago man ventured onto the continent of Australia and settled chiefly along the coastal areas which are now submerged and not accessible to excavation. At that time there were land bridges from New Guinea to Australia and on to Tasmania. Others believe that Australia was colonized only some 30,000 years ago with the men coming by boat or raft. Trager (Ref. 1) says that these first sea-going people of the world populated Australia at 42,000 B.C. In any event, edge-ground axes dating to 22,000 years ago have been found in Arnheim Land on the north coast, and it is thought that the entire continent, along with Tasmania and New Guinea were probably widely settled by 18,000 B.C. The people were early hunters contemporary with giant marsupials which they may have helped to exterminate. The land bridges probably continued out into Melanesia and the same people soon occupied those continental extensions into the south Pacific. We have no information about humans in the other far-spaced islands of the Pacific at that very early time. (Ref. 2, 3, 4, 5)¹

1

[222] TRAGER, JAMES, *The Peoples Chronology*. (Holt, Rinehart & Winston, New York, 1979).

2

[45] DANIEL, GLYN (Consulting Editor), *Encyclopedia of Archeology*. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

3

[176] READERS DIGEST, *The World's Last Mysteries*. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

5

[215] THORDNDIKE, JOSEPH J., JR., (Editor). Mysteries of the Past. (American Heritage Publishing Co., Inc. New York, 1977, distributed by Simon & Schuster, N.Y.).

6

[299] ANATI, EMMANUEL, "Saving the World's Rock Art", Archaeology 36, No.2: 24-30, Mar./Apr. 1983.

7

[312] PATTERSON, CAROLYN BENNETT, "A Walk and Ride on the Wild Side", National Geographic 163, No. 5: 676-693, May 1983.

- 1 Rock art appeared in South Australia before 20,000 B.C. and human bones have been found in caves in Tasmania of 20,000 years ago, thus two times older than any others found this far south. (Ref. 6, 7)

The Pacific: 8000 to 5000 B.C.

THE PACIFIC

Australia had many of the same tools that were found in New Guinea, such as the edge-ground axe and waisted blades. Micronesia and most of Polynesia appear to have been uninhabited throughout all these millennia under review.

The Pacific: 5000 to 3000 B.C.

THE PACIFIC

About 4,000 B.C. seas rose to their present level and the dingo was introduced to Australia perhaps by boat. The Australian small tool tradition, in archaeological terms, appeared on that continent. Mankind was in the Soloman Islands in Melanesia by about 3,000 B.C. (Ref. 1)¹

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

- 1 The arguments go on about the origin and route of settlement of the Polynesian islands. Sinoto (Ref.300) has recently excavated an ancient sailing canoe on Huahine in the Society Islands group, and reports that this dates to 3000 B.C. His conclusion that this indicates that ancient mariners sailed from Asia to these islands is difficult to verify from his paper. He says that linguists are able to trace language roots of early Polynesian sailors back to a tongue spoken in Southeast Asia 5,000 years ago and that this is strongly supported by archaeological evidence of west to east movement. The actual "evidence" is not detailed. There is little doubt but what the Polynesian ancestors came from Southeast Asia, but their route to the eastern Pacific and the time schedule is still debatable. There is more about this argument in the main outline in the 4th century C.E. and after.

The Pacific: 3000 to 1500 B.C.

THE PACIFIC

Aboriginal development in religion, political and economic life continued in Australia. Immigrants from Indonesia brought Lapita pottery into the Melanesian islands by 2,000 B.C. and perhaps to Micronesia, just north of the equator, by about 1,500 B.C. (Ref. [1](#), [2](#))

[1](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[2](#)

[134] MAY, CHARLES PAUL, Oceania: Polynesia, Melanesia, Micronesia. (Thomas Nelson, Inc., Nashville, Tenn. 1973).

The Pacific: 1500 to 1000 B.C.

THE PACIFIC

New Caledonia is said to have had human habitation 3,000 years ago and it is known that Lapita pottery people reached Fiji in Melanesia by 1,300 B.C. Later they reached Tonga and Samoa on the western edge of Polynesia (see **6th century B.C.** discussion of this point). The aborigines of Australia continued unmolested at this time. (Ref. [1](#), [2](#))

[1](#)

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

[2](#)

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

The Pacific: 1000 to 700 B.C.

THE PACIFIC

As mentioned in the last chapter, Fell (Ref. 1) writes that western Pacific languages were greatly influenced by Libyan sailors as they helped the Egyptians mine gold in Sumatra. Fell actually used the term "Polynesian" when he probably should have used "Melanesian" or "Micronesian" where Neolithic cultures were known to have flourished at that time. Furthermore, it must be noted that this whole idea lacks confirmation by any other source material available to the author. While we are on controversial ground, it seems appropriate to introduce the theories of Thor Heyerdahl concerning the entire Pacific region. Heyerdahl is a bona fide professor of anthropology and biology with his own museum at Oslo, with some following on the continent, but whose work has not been whole-heartedly accepted in the United States. Whether this is the result of the frequent suspicion of conservative professionals in any field for those of their numbers who write for public consumption and profit, or not, remains to be determined. The facts remain that he has done several years research in the southern Pacific and presents an enormous amount of material that would be difficult to refute. We therefore present his ideas for serious consideration.

We must start with the realization that the Pacific Ocean covers one-half of the earth's surface and is, itself, a hemi-globe with only infinitesimal amounts of land scattered at great distances as islands across its vast expanse. If New Zealand is excluded, the combined surface areas of the Pacific islands would not cover an area half as large as New York State. Micronesia is that group of coral atolls barely rising above the ocean surface and in total surface area less than that of Long Island and which is located east of Asia and north

of the equator but in an ocean area equating the total width of the Atlantic. South of Micronesia and the equator is Papua-Melanesia, a similarly wide water area beginning where the Indonesian archipelago ends and stretching 4,000 miles from western New Guinea to eastern Fiji. These are large, high islands of continental type, forming almost an uninterrupted bridge eastward, leaving only Fiji as an oceanic group distinct from the rest. East of both Micronesia and Melanesia, running both above and below the equator, lies Polynesia, a group of islands and atolls lying in a triangle with Hawaii at the north, New Zealand in the south and Easter Island in the east.

The settling of Papua-Melanesia by Stone Age people, travelling almost by foot over land bridges in prehistoric times (See **The Pacific: Beginning to 8000 B.C.**) has never been disputed. Except perhaps for Fiji, no navigational problems were encountered. The problem of the settlement of Micronesia is more complicated, although most scholars are agreed that the tribes there represent a mixture of unidentified people with later intruders from both Melanesian and Polynesian areas. Winds and ocean currents would favor overseas drifts from both of these areas.

The settling of Polynesia is still under controversy. The classical concept, still propounded in most histories, is that the Polynesian islands were uninhabited until fairly recent times (i.e. A.D. 600 to 1,000) when the people spread by outrigger canoes from Melanesia and Southeast Asia. But Heyerdahl and others have quite convincingly demonstrated two fallacies in this concept. First of all, there is now archeological evidence that the Polynesian islands were occupied long before the true Polynesians (as we know them today) ever appeared, and secondly it can be shown that it was impossible to sail or canoe eastward from Asia in the southern Pacific to the eastern Pacific until the time of very modern sailing ships. Even the great Spanish vessels of Mendana and others in the 16th century of the Christian Era could not sail directly east from Melanesia and Micronesia, because of the very strong westward currents. After arriving in the west Pacific they always returned home to Europe by going on west across the Indian Ocean and around the southern tip of Africa. The only possible sea route from Indonesia to America by primitive craft was north up along Japan on the Urdaneta Route to between the Aleutian islands and Hawaii to the coast of North America. All of Polynesia can be easily

reached, on the other hand, from America, even by primitive rafts. This latter fact has been demonstrated by Heyerdahl with his Kon Tiki raft trip from Ecuador westward across the Pacific. The essence of Heyerdahl's theories is that the original people of the eastern Pacific islands came from the ancient civilizations of Ecuador, Peru and perhaps Mexico and were not the people we think of today as Polynesians. The latter came much later. The situation is best exemplified by studies of the people, archeology and history of Easter Island. An old tradition of that island insists that the island's earliest ancestors came from a vast desert land to the east and that the sailing time from the original home-land was sixty days. Some of the early people allegedly were of white skin and of these some had red hair, while others were dark-skinned with dark hair. Both of these types were described by early European visitors to the island, such as the Dutch Roggeveen, in 1722. We cannot here detail all the data which has been presented as evidence, but Heyerdahl is quite convincing in his theory that Easter Island and others of the Polynesian group were early populated by pre-Inca sailors from South America, particularly from the Tiahuanaco civilization which would have been the closest to Easter Island. It must be emphasized, however, that to make this assumption reasonable, one must also accept the idea that the Tiahuanaco civilization (and others in early America) might have been instigated by Mediterranean voyagers. Early grave and mummy studies in the Tiahuanaco area of the 19th century C.E. have confirmed that some were definitely different from typical Amerindians. Particularly it has been noted that the hair was not that of Amerindians, but fine in texture. In pre-Inca times, Peru probably had a mixed population and from there such a mixed group could easily have reached Polynesia in one or more migration waves.

This entire concept is strengthened by the writings of the eminent French archeologist, Frederic Andre Engel, who has worked for over twenty years in Peru and who says that the Galapagos group and Easter Island must have played a part in early South American history since pre-Columbian pottery has been found on the Galapagos and it is not difficult to compare the great statues of certain South American states and those of Easter Island and the polyhedral walls of Cuzco, Peru and those of the Marquesas islands of Polynesia. Others also write that permanent settlements

were made between 1,000 and 500 B.C. in Polynesia, from whatever source. (Ref. [2](#), [3](#), [4](#))

[1](#)

[65] FELL, BARRY, America B.C. (Quadrangle - The New York Times Book Co., 1976).

[2](#)

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

[3](#)

[62] ENGEL, FREDERIC ANDRE, An Ancient World Preserved. (Translated by Rachel Kendall Gordon). (Crown Publishers, Inc., N.Y., 1976).

[4](#)

[134] MAY, CHARLES PAUL, Oceania: Polynesia, Melanesia, Micronesia. (Thomas Nelson, Inc., Nashville, Tenn. 1973).

The Pacific: 700 to 601 B.C.

THE PACIFIC

Advanced Neolithic cultures existed throughout many of the Pacific islands. In Australia, the aborigines developed complex kin relationships and a religion involving time-consuming, elaborate rituals. Stone and wooden tablets containing symbols were kept in sacred places which women or uninitiated boys were forbidden to even approach. Some fine painting was done on rocks and bark. (Ref. 1)

1

[19] BRITISH MUSEUM GUIDE, (British Museum Publications Limited, 6 Bedford Sq., London).

The Pacific: 600 to 501 B.C.

THE PACIFIC

Most classical histories record that this and adjacent centuries saw continued spread of people from Indonesia through Melanesia and Micronesia eastward into Polynesia but as we have indicated in previous chapters this was probably impossible with the sea technology available at that time because of the strong westward ocean currents. Of interest in this regard is Braudel's (Ref. 1, page 201) statement that even in 1696 a galleon's trip from Manila to Acapulco took six or seven months and resulted in extreme difficulties in the feeding of the crew. Again, we should reiterate that the Polynesians are not genetically related to either Melanesians or Micronesians and their cultural habits and physical characteristics are entirely different. In contrast, it has been found that the Indians of the northwest American coast and coastal islands at the eastern end of the Japan current across the far northern Pacific used the same adzes that were used centuries before in the northern Philippines. Captain Cook found these also in Tahiti and other Polynesian islands, while others of the 19th century found that the adz-handle and the method of securing the blade to the wooden handle were exactly the same among the Polynesians as among the northwest American Indians. 20th century anthropologists have confirmed these observations and added many other similarities. The inference regarding the origin of the Polynesians is clear. The only contact that the true Polynesians had with the Micronesians was through the Fiji Islands on the border of the two groups of islands where it seems that the pig and the chicken spread from west to east, in a limited area. One must realize, however, that these true, present day Polynesians did not spread down the east Pacific from the North American coastal islands until a much later

period than this 6th century B.C. and in the meantime other peoples did inhabit at least many of these islands. The source of these aborigines remains somewhat uncertain, although, as detailed elsewhere in this manuscript, it is possible that they came from Central and/or South America. (Ref. 2)

1

[260] BRAUDEL, FERNAND, Civilization ~ Capitalism - Volume I, The Structures of Everyday Life. (Translated from French by Sian Reynolds). (Harper ~ Row, Publishers, New York, 1981.

2

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

The Pacific: 500 to 401 B.C.

THE PACIFIC

Please see the immediately preceding modules. No new information seems to be available concerning this particular century.

The Pacific: 400 to 301 B.C.

THE PACIFIC

Australia continued to be isolated and unknown to the rest of the world. May (Ref. 1) states that Tonga was probably settled by 400 B.C. and it claims to have the world's oldest monarchy, although no further documentation is offered. Although accurate dating information is lacking, we might mention at this time that three islands of the Caroline group of Micronesia - Yap, Lele and Ponape (formerly Ascension Island) - all have prehistoric stone work. Ponape is one of the two volcanic islands in this group and has the ruins of an ancient stone city and dike works. Because of the 250 inches of yearly rainfall archaeological investigation on the island has been difficult. The original people of Micronesia may well have come from the Philippines. (Ref. 2)

1

[134] MAY, CHARLES PAUL, Oceania: Polynesia, Melanesia, Micronesia. (Thomas Nelson, Inc., Nashville, Tenn. 1973).

2

[134] MAY, CHARLES PAUL, Oceania: Polynesia, Melanesia, Micronesia. (Thomas Nelson, Inc., Nashville, Tenn. 1973).

The Pacific: 300 to 201 B.C.

THE PACIFIC

We now come to a most interesting new concept concerning the early inhabitants of the Pacific, based on Fell's interpretation of the cave inscriptions of New Guinea mentioned just above. These inscriptions include star maps, navigation diagrams and even calculations attributed to Eratosthenes. Furthermore, in far flung Polynesian islands there are legends of a great sailor named Maui, who "fished up new lands from the sea". Heyerdahl, although making no mention of Fell's work, has attempted to show, and quite convincingly, that no direct eastward sailing from Indonesia and Melanesia was possible, but that people could reach the eastern Pacific islands by sailing up the Japanese current to or near the coast of North America and then back into the eastern Pacific via currents and winds that still prevail. Perhaps, then, both Fell's and Heyerdahl's theories are compatible in some degree. Fell claims to have found in southwestern North America Maui's charts of the Hawaiian Islands showing Gawi (Kauai), Uwahu (Oahu), Mawi Zara (Maui) and what he called the "Great Volcanic Island" (Hawaii). The relative positions of these islands are the same as those given on William Bligh's map of 1779, except that the relatively large size of Hawaii was not recognized by Maui, indicating that he probably only sighted it from a distance and did not really explore it. On Maui's chart the entire island group is called *hawa* and the islands are placed in correct relationship to the western coast of North America on some additional larger maps showing the entire continent.

Professor Raymond A. Dar, distinguished South African anthropologist, and a group from the University of Alabama led by Professor Albert E. Casey, have given some support to Fell's

hypothesis in that they have found skull measurements of the ancient people of New Zealand (i.e. before the advent of true Polynesians) indicate links with both North Africans, Iberians and Zuni Arizona Indians, as well as some tribes in New England and Northeastern Canada. The inhabitants of New Zealand prior to the arrival of the Polynesians in a much later century, were the Morioris and they were driven to the Chatham Islands when the Maori arrived. These Chatham Islanders had Arabic-Semitic countenances, of ten with large, hooked noses and reddish hair. This information from Heyerdahl is certainly compatible with Fell's Libyan origin concept. Another hypothesis dealing with the possible American origin of the aborigines of the eastern Pacific islands will be given in the next chapter. (Ref. 1, 2)

1

[66] FELL, BARRY, *Saga America*. (Times Books, New York, 1980).

2

[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

The Pacific: 200 to 101 B.C.

THE PACIFIC

We have intimated previously that Polynesia appears to have been inhabited by some people prior to the true Polynesian migrations of later centuries. Whether these aboriginal dwellers came entirely from prehistoric America or from some other clime is not known with certainty. We are quite certain that Easter Island and perhaps adjacent South Pacific islands, such as the Marquesas, had immigrants from South America, but what about Hawaii? Recently on an helicopter trip to a remote, presently uninhabited part of Kuauai, the most northern of the chief Hawaiian Islands, we landed in what the pilot called the Valley of the Lost Tribe and he described an old Hawaiian legend that had this as the location of the last stand of the aboriginal people against the invading Polynesians. There were remnants of previous terracing in this valley. Whether these originals had come from the Americas or represented Libyans and others coming via the Japanese Current from Indonesia, a possibility suggested by the findings of Fell (See **The Pacific: 300 to 201 B.C.**), is not known. The later, true Polynesians did not have pottery, but many ancient sherds have been found on Hawaii, apparently left from an earlier people. Heyerdahl's arguments in favor of original settlement from South America, particularly Peru, are impressive. Of first importance is the flora. In Hawaii the husk tomato, *Physalis peruviana*, called "poha", is an American crop plant native from Mexico to Peru. Cotton, the sweet potato and Hibiscus of Hawaii all point to Peru. The white flowering Hawaiian Argemone is closely related to the Argemone grown in ancient Peru for narcotic and anesthetic properties and was similarly used in Hawaii. We must remember that humans brought almost all the plants to the volcanic and coral

Pacific islands, as they were "born" completely bare and only a limited number of plants such as the screw pine, sandalwoods and possibly lauans and breadfruit could have arrived by sea or birds before the advent of man. (Ref. 1, 2) The question of how the sweet potato got to Hawaii and the Marquesas has been debated for a long time. It was once alleged to have been taken there by shipwrecked Spanish crews in 1528, but Dahlgreen of Sweden, after long study, says that there is absolutely no evidence that Hawaii was ever visited by the Spanish prior to Captain Cook's visitations in the 19th century. Some iron implements found by Cook on the islands are thought to be the result of driftage from Japan. The sweet potato is native to both South and Central America and old Hawaiian legends are suggestive of sea contact with America. Legends of the islands also relate that the sweet potato was dried and used for food on long voyages, apparently to other Pacific islands (the Marquesas?). (Ref. 207) There is also a remarkable similarity between the Hawaiian flat-iron type of grinder for poi and the Central American and Mexican corn grinders.

1

[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

2

[134] MAY, CHARLES PAUL, *Oceania: Polynesia, Melanesia, Micronesia*. (Thomas Nelson, Inc., Nashville, Tenn. 1973).

The Pacific: 100 B.C. to 0

THE PACIFIC

True Polynesians probably colonized the Hawaii Islands less than 2,000 years ago but possibly in this first century before Christ. Similarly the Marquesas and Society Islands were possibly reached near the beginning of the Christian era but in the absence of more precise dating we shall postpone further discussion of this debatable issue until the 4th century. As indicated in previous chapters these islands were already inhabited either by an earlier wave across the northern Pacific from the New Guinea region or from America. Potsherds have been excavated in the Marquesas group and on islands near Fiji and they are of a South American not a Melanesian type. The cotton plant (the hybrid 26 chromosome type) from Mexico and Peru spread from the Galapagos Islands to Fiji but no farther.

Shards of pottery have been found on the Galapagos off the South American coast dating to 2,000 years ago, but whether this means a permanent settlement or merely that some ships had taken temporary refuge there is unknown. (Ref. 1, 2)

1

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

2

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

The Pacific: 0 to A.D. 100

THE PACIFIC

Aboriginal peoples lived on most of the islands of the Pacific at this time, with Melanesia long populated from the Indonesian chain and Micronesia perhaps having received people from the Philippines. The eastern Pacific islands were occupied by either Mexican and South Americans or possibly by Libyan mariners, or both. The migration of true Polynesians to Hawaii will be discussed in the **4th century C.E.**

The Pacific: A.D. 101 to 200

THE PACIFIC

The known time-frames for changes in the Pacific are so indefinite that we cannot make a century-by-century account in this large area of the world. Please see adjacent centuries.

The Pacific: A.D. 201 to 300

THE PACIFIC

Please see the several preceding and the following centuries.

The Pacific: A.D. 301 to 400

THE PACIFIC

Classical histories relate that while Lapita pottery was disappearing in Melanesia, prehistoric Samoans ventured eastward in canoes to settle the Marquesas and from this point, in the next 450 years, the Polynesians took their plants, animals, adzes, fishing gear and ornaments all over the Polynesian world. This traditional view is probably no longer tenable. Except for root vestiges in about 1% of the total vocabulary there are no traces of Polynesian language ties to any region in the west Pacific and by blood typing studies it is apparent that the true Polynesians are related to the aboriginal peoples of America, not to the Melanesians. (Ref. 1) We have chosen this module to discuss the probable migration of the Northwest American Kwakiutl - Haida - Salish people to Hawaii, although the time-frame has not been definitely established and it might have occurred anytime in the early Christian era up to the classical date of A.D. 750, which has been accepted by many for the time of the settlement of Hawaii. As stated on pages 269 and 270, the Canadian coastal Indians and the Polynesians all seem identical physically, and neither of these groups have any relationship to the inhabitants of present day Southeast Asia and/or Indonesia. Genetically blood group B has a maximum occurrence in Indonesia, Melanesia and Micronesia but it is totally absent among pure-blooded Polynesians and North American Indians. The blood sub-groups of the Polynesians also follow those of the aboriginal Americans. These studies have been repeated by several investigators and confirmed by an international work group in 1972.

Superficially the guttural present day languages of the Northwest Indians do not resemble the softer speech of Polynesia, but some

linguists have confirmed a relationship of the latter with the Haida language of the central northwest Canadian coast. The houses, mats, fish-hooks, stone adzes, poi pounders, warclubs and in some instances the totem poles are identical, within narrow variations, in the two groups. The legends of these people give further clues. A legendary hero from whose brother the chiefs of the Kwakiutl got their divine descent was called "Kan-e-a-ke-luh"¹. Similar pronunciations are used by adjacent tribes, always with the beginning "Kan-e". The legend continues with the story of Kaneakeluh marrying a "woman of the sea" and the two disappearing, leaving the sun to represent them. Tribal memories of Hawaii describe the discovery of their islands by a wandering chief who came from a vast island or mainland in the north called the "lost home of Kane". Kane was the chief Hawaiian god and considered the direct ancestor of the ruling families. While the Kwakiutl claimed descent from the younger brother of Kane. It is felt that the newly arriving Polynesians on Hawaii tended to absorb the beliefs and customs of the former inhabitants, rather than exterminating them and that the mixture of the races began at that time. (Ref. 2)¹

It has been estimated that in this century stone-masons were at work making giant statutes in the mid-south Pacific on Easter Island. Thor Heyerdahl believe that there is archeological and ethnological evidence that these people had migrated by rafts from a pre-Incan civilization in Peru. We hasten to say that only a few others accept any of this theory, although blood factors in South America and on Easter Island suggest that the people on the island resemble the Americans more than either of these groups resemble Asian Mongoloids and that they have probably received genes from both the East and the West.

Recent archeological excavations and carbon-dating on that island by Heyerdahl and his associates have established three cultural periods with the first, or Early Period, dating from before A.D. 380 to about A.D. 1100. By island tradition the people of this period arrived from the east under King Hotu Matua, after a sixty-day journey on the sea. These "long-ears" people had raised moai or statues and made their homes from stone, although wood was plentiful on the island at that time. They also built totora reed boats identical with those of inland Tiahuanaco waterways and the desert coast region of Peru. What happened to this early culture by about

1100 is unknown, but the subsequent history of this island will be taken up again, then, in a later module.

1

[45] DANIEL, GLYN (Consulting Editor), Encyclopedia of Archeology. (Thomas Y. Crowell Co. 10 East 53rd St., New York, 1977).

2

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

3

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

4

[300] SINOTO, YOSHIKO H., "The Huahine Excavation: Discovery of an Ancient Polynesian Canoe", Archaeology 36, No.2: 10-15, Mar./Apr. 1983.

5

[309] THE MAKING OF AMERICA: HAWAII, Cartographic Division of National Geographic Society, Washington D.C., Nov. 1983.

1. Phonetical spelling, as given by Heyerdahl, (Ref. 3), page 177, quoting G.M. Dawson, who lived among these people in the 1880s.
- 2 Sinoto (Ref.4) says that most authorities deny these theories of Thor Heyerdahl's, which have been put forward in the text. He insists that Polynesia was settled from the west, but he does not seem to consider the possible Japanese current - Canadian Islands - Hawaii at all, and he does not mention anything about blood types, which would seem to prove that the Polynesians did not come through the western Pacific islands. Sinoto gives the route at a much earlier period east from Tonga to Samoa to the Marquesas and shortly thereafter to the Society Islands. As late as November, 1983, the National Geographic Society apparently still subscribes to the idea that the Hawaiian Islands were settled by travelers in double canoes going 2,000 miles northeast from the Marquesas. (Ref.5)

The Pacific: A.D. 401 to 500

THE PACIFIC

We re-state here that in the absence of definite time markers for the Pacific we shall not attempt century by century documentation. Please see preceding centuries. The classical legend of the discovery of the Hawaiian Islands in this century by a Polynesian chieftain, Hawaii Loa, after sailing 2,400 miles from an island near Tahiti, as mentioned by Trager (Ref. [1](#)) is no longer tenable in the light of recent discoveries.

[1](#)

[222] TRAGER, JAMES, The Peoples Chronology. (Holt, Rinehart & Winston, New York, 1979).

The Pacific: A.D. 501 to 600

THE PACIFIC

Once again the reader is referred to previous modules, particularly the 1st and 4th centuries of the Christian Era. It is assumed that in the first Christian millennium there was a gradual increase in the Polynesian tribes and a continued island to island migration via double canoes, so that the more southern islands of the Marquesas, Samoa, Tahiti, etc., were reached by Hawaiian travelers sometime in this period. The large canoes are still used by Indians, Aleuts and others along the Canadian coastal waters, although currently they may add as many as three masts and sails to a thirty-five foot kayak. (Ref. [1](#))

[1](#)

[56] DYSON, FREEMAN, *Disturbing the Universe*. (Harper and Row, N.Y., 1979).

The Pacific: A.D. 601 to 700

THE PACIFIC

Easter Island craftsmen began building altars well before 690 and there is some evidence that prototypic, naturalistic statues may have been placed on them at that time. Although true Polynesians may well have been in Hawaii and possibly the Marquesas in this century, they had not yet migrated as far south as Easter Island and New Zealand. (Ref. [1](#))

[1](#)

[176] READERS DIGEST, The World's Last Mysteries. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

The Pacific: A.D. 701 to 800

THE PACIFIC

At this time and in adjacent centuries, the Pacific Ocean witnessed one of the most remarkable human dispersals of all history. Remote coral atolls and isolated volcanic cones, often separated by hundred of miles of open sea, became sites of human habitation. This occurred by virtue of the Polynesian sea voyages over long distances with their efficient outrigger canoes. Most of the migrations appear to have taken place between A.D. 600 and 1,000. We have previously noted that the spread now appears to have taken place from Hawaii southward, rather than the reverse. Even McNeill (Ref. 1) notes that occasional accidental contact with the Americas and the Asian mainland occurred. The erratic and complex distribution of cultivated plants and domestic animals among the Pacific Islands indicates the range and variety of contacts long before the Europeans arrived in the area. Legend has it that exploring Polynesians even reached the Antarctic ice pack in A.D. 750. Even so, throughout all this period, there was little or no change in Australia, with the aboriginal people existing apparently without significant change, century after century. (Ref. 2, 3)

1

MCNEILL, WILLIAM H., *The Rise of the West*. (The University of Chicago Press, 1963).

2

MCNEILL, WILLIAM H., *The Rise of the West*. (The University of Chicago Press, 1963).

3

[76] GRATTAN, C. HARTLEY, *The Southwest Pacific to 1900*. (The University of Michigan Press, Ann Arbor, Michigan, 1963).

The Pacific: A.D. 801 to 900

THE PACIFIC

The groups of islands called the Southern Cooks and New Zealand were occupied by Polynesians between 750 and 850. In New Zealand the new arrivals had either lost their Marquesan fauna and flora or those could not withstand the new climate, as only the dog and the native rat survived. Taro, yam and sweet potatoes grew on the northern coastal areas only.

There is little doubt but what all the Pacific island groups were already inhabited when the Polynesians arrived. Early European voyagers were emphatic in stating that they had seen three, clearly distinct people, intermixed. The dominant type had fair to light, copper-colored skin, black hair, almost European features with a slight Mongoloid stamp, ability to grow mustaches and tall stature, usually six feet in height. This is the common norm of the New Zealand Maori, as well as the Hawaiians and the island tribes of the Northwest American coast, as we have previously described. The second type showed some Melanesian affinities, with dark skin, flat, broad noses, thick lips, frizzy hair and shorter stature. They were considered by the islanders to be descendants of the legendary Menehune or Manahune. The third type had unusually fair skin, reddish or brown hair and prominent nose, suggestive of Jewish or Arabic faces. This last type was particularly present in the original inhabitants of New Zealand - the Morioris, who took refuge in the Chatham Islands in this or the preceding century, when the true Polynesian Maori arrived. It is felt that all these three types of people dispersed through the Pacific at different times, possibly by different routes and certainly from different cultures. (Ref. 1) A study of skeletons from the Polynesian Islands, apparently taken from the Museum of Natural History, and published by Sullivan in

1924 (Ref. [2](#)) showed a mixture of four different and distinct racial elements. Two of these were classed as Caucasian types, one as Negroid or Melanesian and the fourth as Negroid with added Mongoloid characteristics. Obviously very little conclusion could be drawn from these studies, except that through the centuries many different people have arrived on these Pacific islands.

[1](#)

[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

[2](#)

[208] SULLIVAN, LOUIS R., "Race Types in Polynesia", *American Anthropologist* Vol. XXVI, No. 1, 1924.

The Pacific: A.D. 901 to 1000

THE PACIFIC

Please see preceding module under this heading. Of some interest is the advent of a ruling dynasty on Tonga in A.D. 950 which has lasted up to the present time. (Ref. [1](#))

[1](#)

[175] READERS DIGEST, The Last Two Million Years. (Readers Digest Assoc., Inc., London New York, etc. 1973).

The Pacific: A.D. 1001 to 1100

THE PACIFIC

In Australia the aborigines still had no settled communities, were sparsely distributed and lived a hunting and gathering life. Although no special information is available about this particular century, it is assumed that the Australoid peoples of Melanesia and Micronesia continued to multiply and spread, with a primitive culture.

The Maoris of New Zealand now had a classical Polynesian society and their legends related to an ancestral arrival from *Hawaiki* (also called "Hawaii") and this same concept is widespread in central and southern Polynesia. The names of various chiefs of early Hawaii are duplicated, or nearly so, in the Maori memories. The similarities of Maori physiques and customs to Northwest American Indian groups are amazing. They both used a specialized elbow adze and their large, ocean going canoes were identical, including such details as rudder, row locks, pegs in joining planks and absence of keel. Both used sewing for adding elevated bow and stern pieces and occasionally for adding side planks. At times the double canoe was used by both, the paddles were similar and the method of propulsion by the paddlers exactly the same. Both peoples used three special types of fish-hooks and a grooved *tapa* or bark-beater of wood or whalebone for manufacturing paper cloth. Neither group had knowledge of the loom until Europeans arrived, but the women made dresses from plants or the inner bark of trees after beating. Captain Jacobsen, who visited the American Northwest coast in the last century, wrote: "Their articles of clothing look almost entirely like those of the New Zealand Maori, in form as well as in fabric and manufacturing method. The similarity is so great that some of the blankets from the two regions,

when hung up beside each other, can hardly be distinguished."¹ As with the Hawaiians, the Maori houses were also essentially the same as the Kwatiutl-Haida-Savish Indians and their war clubs were identical. (Ref. ¹) See also the next module.

¹

[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

²

[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

1. As quoted by Heyerdahl (Ref. ², page 171).

The Pacific: A.D. 1101 to 1200

THE PACIFIC

Most of the western Pacific, including Australia, apparently remained much as in previous centuries. On the island of Ponape, formerly called Ascension Island, in Micronesia, there are ancient stone ruins at Nonmatol consisting of walls of great rocks carved into log shapes. These high blocks of basalt had been moved long distances and the work may have some relation to that on Easter Island. Radio-carbon dating shows that the area was occupied as recently as A.D. 1200 but the original inhabitants may have been there centuries earlier. (Ref. 1) (Also see **The Pacific: 400 to 301 B.C.**)

In the eastern Pacific at Easter Island, it appears that the earliest known platforms (Ahu) known to have been altars for classic giant statues (Moai), were built about A.D 1110 to 1205, although statues of the same type may have been constructed earlier.

The year A.D. 1100 begins the 580 years of the Middle Period of Easter Island history and was initiated with a new invasion of "Short-ear" people, who probably also came from Peru. They introduced the bird-man cult which dominated religious activities throughout this period. In this same era more than 600 giant statues were sculptured from the now naked crater walls of Rano Raraku. Some of these statues reached 46 feet in height and weighed 40 tons.

In the last chapter we discussed the probable migration of Hawaiian Polynesians to the south Pacific. In this same vein, legend has it that in this 12th century a notable Hawaiian chief named Olopana and his wife Lu'ukia left their islands to seek a new home in the south. With the sound changes which distinguish the Maori variety of the Polynesian language from the Hawaiian, these names

become Koropanga and Rukutia and, as such, these names occur in Maori legend as having come from Hawaiki. This would tend to give further credence to the concept that Hawaii was the gateway of the present Polynesian population of the eastern Pacific Islands. Samoa, the western corner of Polynesia, became a contact point, acquiring certain Melanesian assets from Fiji. The **original** occupants of these eastern islands were not carpenters and did not excel in woodcarving art like the historically known Maori-Polynesians and their northern neighbors and probable relatives along the Northwest American coast, but were, rather, expert stone masons like the inhabitants of the barren landscapes of the Andes. (Ref. [2](#))

[1](#)

[134] MAY, CHARLES PAUL, Oceania: Polynesia, Melanesia, Micronesia. (Thomas Nelson, Inc., Nashville, Tenn. 1973).

[2](#)

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

The Pacific: A.D. 1201 to 1300

THE PACIFIC

Australia continued to be completely isolated from the rest of the world, and we must simply assume that the aborigines continued to live as they had for centuries, with little change in their way of life. In New Zealand, in this and the next century, there was widespread deforestation by man, along with the extinction of the large native birds, such as the Moas. Warfare occurred with the development of fortified settlements termed *pa*. (Ref. 8) Please see **preceding module** for information concerning other Pacific Islands.

1

[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

The Pacific: A.D. 1301 to 1400

THE PACIFIC

Some authorities feel that it was only in this century that people from east Polynesia came to New Zealand in their double-hulled canoes, to become the Maoris. There is no question, however, that other people had preceded them as old human bones along with the now extinct Moa bird skeletons were found at that time. The exact times and relationships of the Maoris with previous peoples may be clarified in the future. (Please see previous modules.)

The Pacific: A.D. 1401 to 1500

THE PACIFIC

Regarding Australia please see previous modules. It is estimated that the true Polynesians arrived on Easter Island in the late 1400s and lived peacefully there with their predecessors for about 200 years. The remnants of true Polynesian culture are few today, however, indicating that the previous South American cultures were dominant, even after the final battles, which will be described in the **17th century chapter**. With the exception of some part of the later Easter Island vocabulary and some of the primitive wood-cutting tools, there are no current Polynesian cultural traits on that island. (Ref. [1](#)) Hawaii, the Marquesas, Society Islands, New Zealand and the other eastern Pacific islands all had active Polynesian colonies by this century.

[1](#)

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

The Pacific: A.D. 1501 to 1600

THE PACIFIC

Both New Zealand and Australia still remained essentially untouched since prehistoric days. Sailing with the westward Pacific current from Mexico, Alvaro de Saavedra reached the eastern Caroline Islands in Micronesia in January, 1528. Subsequently the Spanish introduced cattle, goats, corn and coffee to those small islands, but with these products went foreign diseases of influenza, measles and perhaps others, which killed thousands of island people. (Ref. 1)

The Spaniards had no sooner crossed the isthmus of Panama and reached the coast of Peru by water than the Inca historians recounted that inhabited islands were to be found some 2 months sailing distance westward in the South Pacific and gave correct sailing directions to some of these, including Easter Island. It was from these reports that Spanish caravels soon set out on two separate voyages which led to the European discovery of the Solomons in Melanesia in 1567 and the Marquesas of Polynesia in 1595. The latter voyage has an interesting story. Alvaro de Mendana was the Peruvian Viceroy's nephew and had been ordered by King Philip II of Spain to leave Callao harbor, Peru with 150 men to convert the Pacific islanders to Christianity. The presence of the islands were known chiefly through Sarmiento de Gamboa, who eventually was a famous chronicler of the Incas and he had learned from them of the inhabited islands far out in the Pacific. Among his writings is the story of a voyage of Tupac Inca, grandfather of the Inca brother kings that the Spaniards encountered. Tupac allegedly had sailed west with an immense number of balsa barges and 20,000 men, returning almost a year later, with much booty and "black people". Such balsa rafts have been found in various parts of

the Pacific. The memory of King Tupac Inca is preserved in the traditions of Mangareve Island and even as late as 1825 a Captain Beechey visited that island and drew a picture of 13 Mangarevans sailing a log raft 40 to 50 feet long. The balsa rafts, like reed boats, were "wash-through" craft which could never be filled with water. At any rate, with de Gamboa as navigator, Mendana sailed west to land without difficulty in the Marquesas. (Ref. 2)

None of the European ships mentioned above or the ones that followed for 200 years were ever able to come back east across the Pacific the way they had gone because of the tremendous westward running currents in the equatorial and southern latitudes of that ocean. Those early trans-Pacific ships usually returned to Spain through the Indian Ocean and around the tip of Africa. Incidentally it was Zacatula, using this same westward ocean flow, called the Saavedra current, who sailed straight across to Mindanao in the Philippines in 1527. Braudel (Ref. 3) tells us that in 1590 a Portuguese merchant from Macao, Joao da Gama, crossed the Pacific and landed at Acapulco, but he says nothing about his route and we must assume that the skipper may well have gone north along the Japanese coast to near the Aleutians and then down the American coast. There is no other way for any kind of early vessel. Malay canoes and proas or Chinese and Japanese junks, whether guided or lost in drift, can be readily brought to British Columbia on the Japanese current and if drifting on from there, in another few weeks, will find themselves in Hawaii. (Ref. 4) It was sometime in this or the next century that prolonged strife began on Easter Island and some 300 finished moai (giant statues) were overturned. We shall seek the possible meaning of this in the next module. (Ref. 5)

1

[134] MAY, CHARLES PAUL, Oceania: Polynesia, Melanesia, Micronesia. (Thomas Nelson, Inc., Nashville, Tenn. 1973).

2

[95] HEYERDAHL, THOR, Early Man and the Ocean. (Doubleday & Co. Inc., Garden City, New York, 1979).

3

[292] BRAUDEL, FERNAND, Civilization & Capitalism - Volume II, The Wheels of Commerce. (English translation by Sian Reynolds), (Harper & Row, Publ., New York, 1982).

4

[95] HEYERDAHL, THOR, *Early Man and the Ocean*. (Doubleday & Co. Inc., Garden City, New York, 1979).

4

[176] READERS DIGEST, *The World's Last Mysteries*. (Readers Digest Assoc., Inc., Pleasantville, New York, 1978).

The Pacific: A.D. 1601 to 1700

THE PACIFIC

Pedro Fernandes de Queireos, the Portuguese pilot who continued command of Mendana's expedition into the far Pacific in the previous century, set out again from Peru in 1605 with settlers to establish another colony in the Solomons. He went too far south, passing by Tuamotu and the Society Islands and finally set his settlers ashore in the New Hebrides in Melanesia in 1606. A little later he, himself, mysteriously sailed away again. (Ref. 1)

Luis Vaez de Torres sailed along the southern coast of New Guinea and through what is now called the Torres Strait in about 1606, but thereafter Spain made no more exploratory trips for almost 2 centuries. At the same time, however, the Dutchman Willem Jansz, sailing out of the great base in Java, had discovered Australia, although he thought it to be a southern extension of New Guinea. The climax of Dutch exploration came under Governor-General Van Dieman and his captain, Abel Janszoon Tasman after 1636. They sailed the northwest coast of Australia, discovered and named New Zealand (1642), found the Tonga and Fiji Islands and discovered the south coast of Van Dieman's Island in 1644. (Ref. 2) By the early 1640s the Dutch knew something of the west coast of Australia, which they called New Holland, although they were not sure that it was a continent. (Ref. 3) It has been estimated that the aborigine population of Australia at that time was about 300,000. (Ref. 4)

Jesuit missionaries were sent to Micronesia by Mariana of Austria, Spain's King Philip IV's widow, in 1667 and they renamed Magellan's Ladrões the "Marianas" in the Queen's honor. Meanwhile, in the Carolines, where Spanish sailors had first landed, disease continued to rampage and where 20,000 to 30,000 people

had previously lived peacefully, by the end of this century only a few thousand remained. (Ref. 5)

On Easter Island a catastrophe struck in 1680 and all work in the stone quarries, along the roads and on the Ahu was suddenly stopped, never to be resumed. Thousands of obsidian spear heads have been found and the Ahu images were overthrown and masonry walls and old reed houses were torn down or burned and a major population group was nearly annihilated. The victors, who remained, were Polynesians, but they may have arrived quietly some 200 years earlier. (Ref. 6)

1

[134] MAY, CHARLES PAUL, Oceania: Polynesia, Melanesia, Micronesia. (Thomas Nelson, Inc., Nashville, Tenn. 1973).

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[8] BARRACLOUGH, GEOFFREY (Editor), The Times Atlas of World History, (Hammond, Inc., Maplewood, New Jersey, 1978).

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The Pacific: A.D. 1701 to 1800

THE PACIFIC

We have discussed in earlier modules the great difficulties in direct west to east crossings of the Pacific in primitive vessels. Even in 1707 to 1711 Monsieur de Frondad, while sailing without particular difficulty from Port Louis, France down around the tip of South America, up the west coast to Huacho and then across the Pacific to China, then took 6 months to come back across the Pacific to Cape St. Lucas. Ocean currents and winds are not conducive to such trips. European voyages in the Pacific were originally searches for a habitable, southern continent or for a usable northern strait to the orient, both imaginary. But they did reveal an insular New Zealand and a habitable eastern Australia, many attractive islands and a valuable shale industry. (Ref. 1) When the Dutchmen Jacob Roggeveen stumbled on Easter Island in 1722, there were probably 3,000 or 4,000 people on the island, representing a mixed group with some fair-skinned and some dark-skinned, who lit fires before some enormous statues standing in a row. The statues, even then, were old and eroded. The people appeared to be living in near anarchy amid the wreckage of a once high culture and cannibalism was common. Roggeveen, however, was given great quantities of sweet potatoes, which they called by the Peruvian name "Kumara". (Ref. 2, 3) When the Spaniards finally arrived on that island in 1770 they found it to be at exactly the direction and distance from Ecuador that had been detailed to their earlier comrades by the Incas some two centuries before. The Spaniards' description of Easter Island included the presence of plantains, chili peppers, sweet potatoes and fowls. The plants were all those known in pre-European Peru and had been present in pre-Inca burials. Of perhaps more importance, they found totora reeds in large bogs of old crater

lakes and from these the islanders built houses and boats, furniture, baskets, fish-nets, etc.

These reeds also had been grown in irrigated fields on the coast of Peru and similarly used. Easter Island tradition insists that an early ancestor, Ure¹, brought with him the first totora root stocks and planted them in Rano Kao Lake. Captain Cook also visited Easter Island in the late 1770s and the disastrous Hotu-iti war, which finally annihilated most of the people there, must have occurred about 1772 to 1774, just before Cook's arrival. Only a few poor islanders were left and Cook's Tahitian interpreter could understand only a few of their words. (Ref. 4)

In a sense, the first British Empire collapsed in 1783 when the 13 American colonies broke free, but then the second British Empire involved the British dominance of the South Pacific. In this 18th century Oceania belonged to the British and the French. This began before with the voyages of William Dampier, who had twice visited the Indian Ocean coast of New Holland (Australia) between 1681 and 1711. Captain John Byron (grandfather of the poet) took possession of the Falklands in 1765 and Samuel Wallis and Philip Carteret followed with exploration of Tahiti, Pitcairn, New Britain, Philippines, Celebes, etc.

Captain James Cook left England on the first of his three Pacific voyages in 1768, supposedly on a scientific mission at the instance of the Royal Society. Cook circumnavigated New Zealand and came upon the eastern shore of mainland New Holland in April, 1770 and at extreme peril spent 4 months exploring the seaboard inside the Great Barrier Reef. He called this land "New South Wales". Almost simultaneously with Cook's first Pacific trip, Captain Louis Antoine de Bougainville (for whom the flower is named) took possession of the Society Islands of Polynesia for France. He was one of the few explorers who was good to the natives, gaining their confidence. He introduced turkeys to the islands and may have tried to grow wheat. De Bougainville then sailed on west to the Samoas, New Hebrides and the Solomons. (Ref. 6) When the Europeans arrived in Australia there were some 300,000 aborigines living in about 500 tribal territories. One of their food delicacies was the bogang moth. On New Zealand there were between 100,000 and 250,000 Maoris living a hunting-farming life style. (Ref. 7)¹

Cook's second voyage starting in 1773 took him twice deep into the Antarctic Ocean and to many new islands, including the New

Hebrides, where he first saw the Melanesians, realizing that they were much different from the Polynesians seen on the other islands. By using citrus fruits, Cook had prevented all scurvy on this trip. His third Pacific trip was to find the much desired Northwest Passage to China through North America, - seeking it from the Pacific side. It was in 1778 on that trip that he discovered the Hawaiian Islands, where he was originally mistaken for a white, fair-haired ancestor god, Rono (Lono), but in 1779, when they found he was not, they killed him. In Hawaiian folklore, the blond god Lono was associated with navigation in boats made of reeds and wickerwork. Throughout Polynesia, Cook was deluged with sweet potatoes and he found various gourds used as water vessels and utensils. (Ref. 9) It should be noted that he originally named the Hawaiian group "The Sandwich Islands" after John Montague, the 4th Earl of Sandwich. (Ref. 10)²

In 1787 the British government decided to send a penal colony (not a settlement colony) to Botany Bay in Australia. The exact number of convicts sent is still in some dispute, but it approximated 700 plus, of which about 150 were women. Actually they skipped Botany Bay and settled in the great harbor area to be named Sydney, after a Lord of that name, and Captain Arthur Phillip set up an autocratic government. (Ref. 13)

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[309] THE MAKING OF AMERICA:HAWAII, Cartographic Division of National Geographic Society, Washington D.C., Nov. 1983.

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[76] GRATTAN, C. HARTLEY, The Southwest Pacific to 1900. (The University of Michigan Press, Ann Arbor, Michigan, 1963).

1. "Oro" is the name of an old, important tribe of the Lake Titicaca area in Peru-Bolivia, which based its economy on the totora reeds. (Ref. 5)
- 1 Captain Cook's first trip was in the 106 foot bark "Endeavour". He actually had two goals, the first being the scientific one to observe the "transit of Venus" in 1769 so that this could be compared with two other places of observation around the globe. Because of a cloud zone around Venus, however, the observation was to no avail. His second goal was given to him sealed and was opened only after completion of the first. It was to sail south to find "the southern continent", theorized to have to be present by geographer Dalrymple, who felt that New Zealand was only a northern peninsula of that hypothetical large continent. On this trip Cook proved that New Zealand consisted of two major islands. The Maori were initially unfriendly, but they could converse with a Tahitian accompanying Cook. Some of the Maori canoes would hold 100 warriors. On the Australian coast the aborigines paid little attention to the white men and just wanted to be left alone. On a stop at Batavia many men were lost from malaria and dysentery although they had been healthy when they arrived in Asia. (Ref.8)
- 2 Cook's 2nd Pacific voyage (from west to east) was really another search for the "southern continent". He used Harrison's chronometer, a "never-failing guide". On his flagship Cook made the men keep to a strict dietary regime and he had no scurvy, but Lt. Tobias Furneaux, commanding a second ship, did not carry out the dietary orders and his men developed scurvy. In 1,774 when Furneaux was awaiting Cook in Queen Charlotte Sound, New Zealand, he sent 11 men ashore to get some vegetables and they did not return. A rescue party found the remains of

a cannibalistic feast! It is of interest that on Cook's third voyage he left Plymouth, England just 8 days after the signing of the Declaration of Independence in the United States, but Ben Franklin saw to it that no U.S. ships were to bother this scientific expedition. On Cook's return, coming north from the tip of Africa, he stayed clear of Europe because of danger from French ships and went up around north of Great Britain and then down to Whitby on the east coast. Cook described Polynesian canoes 60 to 80 feet long, some even up to 100 feet and carrying 60 people with pigs, dogs and fresh vegetables **or** 100 warriors. He found Polynesians almost all over (Society Islands, Hawaii, etc.) were incorrigible thieves. His biographer, Warner (Ref.[11](#)) thought the Polynesians might have gone through Micronesia on their eastward migration but certainly **not** Melanesia. By 1,778 there were perhaps 300,000 Polynesians in Hawaii in warring and feudal-like farming chiefdoms. By 1,795 all islands but Kauai were consolidated in a single kingdom under King Kamehameha. (Ref.[12](#))

The Pacific: A.D. 1801 to 1900

THE PACIFIC

AUSTRALIA

Although the first penal colonists, including 700 convicts and 324 officials and family members had landed in Botany Bay in 1,788, the population of Australia did not pass 50,000 until 1,830 and the 1,000,000 mark was not reached until the late 1,850s.

As the century opened England was so busy with Napoleon that there was little concern for Australia and it was not until about 1,820 to 1,825 that even reasonable information was available in England about the New South Wales colony. Overall, by mid-century 160, 800 convicts had been sent, including many Irishmen. Few free settlers could be tempted to arrive and by the middle 1820s there were not more than 2,000.

It was in 1,801 that Captain Mac Arthur brought 12 ewes and a ram of the Merinos Spanish-origin sheep from South Africa, where they had been introduced from Spain a generation before. But wool was not exported to Britain until 1,806 and did not become a really significant market factor until the middle 1,820s, chiefly as the result then of the prodding of Governor Lachlan Macquarie, successor to the famous William Bligh of "Bounty" fame. The subsequent need for new grassland resulted in the successful crossing of the Blue Mountains and as the economy improved, a scattering of free settlements were started around the coast. Then the inland exploration of Australia was dominated by the problem of the rivers, because away from them there was usually great drought. (Ref. [1](#), [2](#))

Insert Map: Some Significant Explorations of Australia, and

notes.

Multiple attempts were made by the British to settle the northern tip of Australia, chiefly to harass the Dutch in the adjacent islands and to make contact with the Malaysians and Indonesians, who had been in communication with the Australian aborigines for centuries, but by mid-century all colonies had failed. In the south wheat began to be of commercial importance by 1,843, when a mechanical harvester called a "stripper" became available. Problems of land acquisition and ownership as well as the problem of labor supply continued for decades. Even up to 1850 free labor lived under the shadow of convict competition. At mid-century one still spoke of the "Australian Colonies", four in number, and initial proposals of federation got little response. In 1,863, however, the political geography was fixed in the present day pattern, although the Commonwealth did not materialize until 1,901. Up until then, the people thought of themselves, not as Australians, but as Victorians or Queenslanders, etc., as the case might be. Gold in significant quantity was discovered in New South Wales and multiple areas of Victoria in the 1,850s, leading to massive immigration from Europe, America and China, so that Australia's population almost tripled from 1,850 to 1,860, reaching 1,146,000 people. Melbourne grew fiercely as the seat of government of the gold fields of Victoria and the presence of thousands of "diggers" in those fields resulted in a lasting nickname for any of Australia's residents. But even then, wool-growing remained the premier industry.

Development increased in the 1,870s with a land boom in the 1,880s, followed by a financial panic in the early 1,890s. Recovery occurred rapidly, with associated great political, social and cultural changes. Agriculture and especially sheep raising remained the mainstay of the economy. Sheep diseases, the carnivorous sheep-eating dingo and the pasture destroying kangaroos and imported rabbits were fought constantly. In Queensland in 1,887 to 1,889 some 3,700,000 and 60,500 dingoes were killed, but the rabbits remained uncontrolled. Wheat acreage was gradually increased during the century, with South Australia alone reaching over 1 1/2 million acres by 1,891. Cane sugar became an important crop in Queensland by the end of the century. Less in true importance to the economy, but high in emotional value was mining - not only of

the gold, but also of copper, a silver-lead-zinc complex, tin and coal. The leading manufactured products were boots, shoes and clothing.

Attempts to nationalize Australia and its various colonies surfaced at intervals after about 1,850 and culminated in 1,891 in a constitutional convention held in Sydney. In spite of much work, ratification by most of the colonies did not follow and it was not until September 17, 1,900 that Queen Victoria was finally able to sign a Proclamation to the effect that on and after the 1st day of January, 1,901 the people of New South Wales, Victoria, South Australia, Queensland, Tasmania and Eastern Australia should be united in a federal commonwealth under the name of the Commonwealth of Australia.

Australia's remoteness from the rest of the Caucasian world lessened with the development of steam-driven ships and undersea cables. In 1,881 60% of the shipping tonnage arriving in Australian ports was sail, but by 1,900 only 17% remained. The appearance of refrigerated ships in the 1,880s allowed shipment of frozen meat through the tropics to the London market and many farmers made fortunes. Urbanization progressed with Sydney reaching a population of 487,900 in 1,901 and Melbourne attaining 494,129 in the same year. Immigration supplied over 25% of the increase in population in the last half of the century, with people from the British Isles leading the way. Next in number were Germans, with Italians a distant third. In the gold rush days, however, as we noted above, thousands of Asiatics, chiefly Chinese, entered the area. Then other, chiefly Pacific Islanders called the "Kanakas", were deliberately imported as laborers, first in the pastoral industries and then in sugar manufacture. The colony of Victoria legislated restriction on Chinese entry as early as 1,855. Led by Sir Henry Parks, Victoria, South Australia and Queensland all joined in passing fairly uniform legislation to stem the influx. Western Australia followed in 1,886 and Tasmania in 1,887. By 1,901 the Chinese population had shrunk to 32,000 from a high of about 50,000 in the 1,870s. Although it was agreed in the 1,880s that Kanaka importation should also stop by 1,890, a depression in that year changed the outlook and the restriction was not imposed.

In 1,803 Great Britain took possession of the island of Tasmania and in the following year established a penal colony there. At that time there were approximately 7,000 natives, but they had been completely exterminated by 1,888. Originally part of New South

Wales, Tasmania became a separate colony in 1,825, but did not receive its present name until 1,853. (Ref. [3](#), [4](#))¹

MELANESIA

Insert Map: Micronesia, Melanesia and Polynesia

The people of the Solomon Islands are generally darker and shorter than even those of Fiji, New Caledonia or the New Hebrides, with many of the interior tribesmen being very black. Pygmies are present in the southern islands. European domination of the Pacific islands did not occur rapidly. New Caledonia, rich in minerals, became French in 1,853 and by 1,900 there were 23,500 whites in that group, by far the largest Caucasian population in any South Seas island chain. After 1,887 New Hebrides was controlled by a joint naval commission of British and French officers. (Ref. [6](#), [7](#))

New Guinea (Papua) is the world's largest island, excepting Greenland. It was so named because of coastal similarity to Guinea in Africa and consists largely of tropical jungle in which head-hunting and cannibalism have been practiced in some remote areas perhaps right up to the current writing. The west half of the island was annexed by the Dutch in 1,828 and in 1,884 the British announced a protectorate over the southeast coast and adjacent islands, while the Germans claimed the northeast portion. Thus it remained for the remainder of the century. In Fiji, bordering Melanesia and Polynesia, Europeans came at the opening of the century looking for sandalwood, but their diseases almost destroyed the native Fijians, who were of Melanesian origin. European guns intensified the tribal wars and after many chiefs joined in a request, the British annexed the islands in 1,874. Cannibalism flourished in those islands until the 20th century. Small, hot peppers and other vegetables were served with human meat to give it better flavor. After the British took over they hired natives to work in the cane fields, but at poor wages and only a few would work. As a result the British began to import East Indian laborers and today there are more of the latter in Fiji than natives and that brings up many problems. (Ref. [8](#), [9](#), [10](#))

Since whaling vessels stayed at sea until their barrels were filled with oil, the voyages sometimes took 2 or 3 years and only the

dregs and troublemakers of the sailing men's world could be talked into signing up for such long voyages. As a result the Pacific islanders saw some mighty rough and dishonest American and British sailors. They brought in rum, started fights, stole women and anything else available. Some jumped ship to become pirates on their own, the most famous being "Bully" Hayes, who also was one of the originators of "blackbirding". Ship captains would "rent" natives to entrepreneurs to be used as laborers or miners (in South America) with the theory being that after a certain period the "blackbird" would be released to return home. Few ever did. The men of Melanesia suffered most of this blackbirding and wherever they were taken, living conditions were very bad and 10% up to 75% of them died of disease. In the late 1870s the people of New Caledonia rebelled against that and started to slaughter any foreigner, savagely. That got the attention of European governments so that they finally forced an end to that traffic in island people.

MICRONESIA

The Japanese, feeling population pressure, began to move south in the Pacific, forcing the Chinese out of Okinawa and other Rykyu islands by 1875. They had already laid claim to the Bonins in 1861 and made them a part of their empire in 1876. They then soon took the three volcano islands of which Iwo Jima is one, and after the turn of the century they moved still further south into the true area of Micronesia. Copra and dried fish were about the only products of these tiny islands.

POLYNESIA

In this 19th century Americans, Russians and Germans joined the Spanish, French and English in Oceania. In the first 50 years, European attention was given chiefly to the eastern islands, all of which, except Fiji, were already inhabited by true Polynesian peoples. The great explorers included the Frenchman Dumont d'Urville (1826-1840), who also explored the Antarctica, the British Captain Frederick Beechey (1825-1828), Captain James Cook and above all the American Charles Wilkes, U.S.M. (1838-1842). Wilkes had 5 ships at his disposal and his explorations were extensive, from Hawaii to Antarctica and the

scientific publications arising from the expeditions are voluminous. In the east Pacific as well as the west, white men brought much grief to the islands, including disease and guns for more deadly warfare than had previously been possible between tribes. Dysentery and childhood diseases, along with firearms, started the process of island depopulation. Whalers and missionaries, each in their own very opposite ways, had tremendous effects on the island natives. (Ref. [11](#))

In the last module we described the visits of Captain Cook to the Hawaiian Islands. In an effort to secure an agricultural base for Alaska, Georg Schaeffer, a Bavarian in the Russian Service, established forts at two places on Kuauai in 1,816, but was soon run out by Yankee traders. Later in the century the Hawaiian Islands functioned under their own government, first as a constitutional monarchy and then in 1,893, after the deposition of Queen Liliuo Kalani, under a republic with Sanford B. Dole as president. In 1,900 the islands became a United States territory with Dole as governor. (Ref. [12](#))

The Marquesas and Tahiti reluctantly became French protectorates in 1,842. At that time the population of the Marquesas was about 20,000, but European diseases decimated the people, as elsewhere in the Pacific, and today in the 20th century there are only about 3,000 people, with 4 of the islands having no inhabitants at all. The people of those islands used knotted strings to help them memorize lists of their ancestors names, much the same as the Aztecs did. (Ref. [13](#))

At the southwest corner of the great Polynesian triangle lies New Zealand, the only island group lying entirely within the temperate zone. Although discovered by Captain Cook in 1,769 it had only temporary, various European settlements in the next half century. By 1,840 the fierce, native Maori had already declined from a previous high population of perhaps 200,000 down to about 100,000 in the North Island, probably chiefly from inter-tribal wars. The South Island probably never had more than 15,000. The Maori were cannibals, but ate only their enemies, and initially, at least, they did not consider the whites in general as enemies. Their priests used notched sticks to help them remember endless chanted verses. They all suffered from the white man's diseases, including venereal ones, changes in diet and clothing and the use of guns on themselves. But they were happy to get iron, the pig and the potato.

Soon after 1,840 there were already 19 Church of England missions and 2 Catholic ones, with both trying to keep the Maori tribes from warring on each other, although the church groups had conflicts themselves.

The British influence on the islands actually began in 1,833 with the appointment of James Busby as a resident agent. In 1,835 he signed the Treaty of Waitangi with Maori chieftains, forming an infant state of mixed whites and Maoris, under the parent protection of the King of England. Legally this appeared to be only a statement of intent to form a biracial society, with equal rights for both, but it survived only as an ideal. In spite of land wars which raged from time to time, New Zealand became a Crown Colony in 1,842, with Captain William Hobson as the first governor. A constitution of 1,852 set up a pseudo-federal system with 6 provinces, each with legislatures and central governments, but the Maori were denied franchise because they were not land-owners individually, as the Europeans were, but communally. Although not represented, they were still heavily taxed and Hobson and his successors had great difficulties pleasing both the Maori chieftains and the white settlers. Great government deficits augmented the problems.

The principal promoter of systematic settlement, the New Zealand Company, was motivated by land hunger at the expense of the "naked savages" and the racial situation rapidly deteriorated to the Maori-pakeha Wars of the 1,860s. These Maori Wars, lasting from March 1,860 to February 1,872, were not in any way a general native uprising. They were loosely linked bush skirmishes in various parts of the North Island. The total losses were probably not more than 700 whites and "loyal" Maoris on one side and 2,000 Polynesians on the other side. The wars simulated the smaller Indian wars of the eastern American forests. They finally ran themselves down and stopped, without any formal declaration of peace. The Maoris tried to withdraw then from the pakeha world. The whites were then able to exploit the North Island, with a boom developing in the 1,879s. Maoris were employed as laborers on public works and as shearers and station hands. In 1,867 some natives got the vote and elected 4 members to the House of Representatives.

Running parallel with the wars during the 1,860s was the story of gold on the South Island, beyond the reaches of the battles. Thus,

both population and economy rose faster on the South Island, due not only to gold, but also to vast increases in cattle, sheep and crop acreage. Full exploitation of the potential products of both islands was delayed because of the absence of technology such as refrigeration, however, and a depression developed in the 1880s. Along with this, but unrelated, by the middle 1,880s it appeared that the Maoris might die out, as their number rapidly declined. By 1,896 there were only 42,000 left. New Zealand reached political stability under the leadership of a liberal prime minister, Richard John Seddon (1,893-1,906) and the help of rising prices and the export of meat, cheese and butter facilitated by refrigerated shipping. The British initially offered a market for wool and gold. Many experiments in socialism were undertaken in this country and it remains basically socialistic, yet without complete government control, today. (Ref. [14](#), [15](#), [16](#))

It was noted **previously** that when the Maoris arrived in New Zealand they found a previous people, the Morioris³, which they drove out to the Chatham Islands, some 400 miles away. In the 1,830s some Maoris apparently followed them there and largely exterminated them, with the help of a disreputable white. These Chatham Islands served as a place of confinement of Te Kooti and other Maori rebels during the wars of the 1,860s and were later incorporated into the pastoral economy of New Zealand.

At the risk of overemphasizing the importance of one small island, further information on the far southeastern Polynesian Easter Island may be of some interest. To date we have noted:

1. Probable original settlement by people from the South American mainland
2. Late arrival of true Polynesians
3. The loss of Polynesian culture, in the main, in favor of the earlier traditions

Between 1,859 and 1,862 Peruvian slavers took some 1,000 Eastern islanders to Peru to dig guano. A handful of those later returned to the island, but brought small-pox with them and that disease further decimated the already depleted island. By 1,877 there were only 111 natives left. (Ref. [18](#))

In 1,862 a French missionary, F. Eugene Eyraud, visited Easter Island and found some strange boards and sticks with carved

symbols in some of the huts and the local people had no idea of their meaning or significance. Some were salvaged and eventually ended up in various museums across the world. In 1,958 Thomas Barthel (Ref. 19) got reproductions of those from Honolulu, Vienna, Santiago de Chile, Leningrad, Washington D.C. and London, finally accumulating some 12,000 signs or ideograms to analyze. The signs were 1/3 to 1/2 inches long and were elegantly made. Previously a French bishop had found a man on Tahiti, who allegedly was originally an Easter islander and he had "read" four of the tablets containing the signs, by chanting a song in Polynesian for each. The chants were recorded by the bishop, but translated into French they seemed meaningless and the notes were almost lost. Barthel decided that the Tahitian, Metoro Tauara, was too uneducated to have completely translated the ancient script and proceeded to develop a translation of his own. He reported that 120 basic elements were combined to make 1,000 compound signs as ideograms and that it was not a phonetic system. Furthermore, he decided that the writing was chiefly religious ritual, without mention of historical events. He says that the islanders had another writing called the "Kau Script" which recorded their annals, but that has disappeared. Since the board writings had a special symbol for the breadfruit tree and other plants which never grew on Easter Island and since Pitcairn Island to the west was mentioned, Barthel felt that these things refuted Heyerdahl's theory of settlement from the **eastern** mainland. But those talking boards are not dated and whereas Heyerdahl's South American migrations theoretically occurred many centuries ago, it does not seem that Barthel's conclusions are necessarily valid. Ocean trips between Polynesian islands certainly occurred after the time of the early Polynesian migrations, if not before and such have no bearing on very early trips west from Peru or Ecuador. (Ref. 20)

Please permit one more argument from Heyerdahl. (Ref. 21) In 1,864 before the local language had been recorded, a missionary with a group of Mangarevans came to Easter Island via Tahiti and the Tahitian language was introduced, so that subsequently there was a mixture of languages, if there had not been before. The Tahitians who arrived at that time were Christians and therefore did not bring the classical Polynesian deities of Tu, Tane, Tangaroa, Tiki and Maui. Some of those names persisted although they were not worshiped or venerated. The Easter Island gods were Makemake

and Haua and symbols related to the former were closely associated with sun-measuring devices and other trappings of solar worship, all unknown in other Polynesian areas. Conversely, the complex bird cult and ritual of Easter Island has no counterpart in the rest of Polynesia, but the bird-man cult was present at Tiahuanaco, Bolivia and in the Chimu culture of north Peru, so that an American origin for those Easter Island practices is suggested.

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1. NOTES: In Tasmania the first Europeans (except a few shipwrecked sailors) were prisoners transported there in 1821. They worked under the lash, cutting 2,000 year-old Huon pines for ship building. In the 1850s whalers came to Port Davey. The whites raped the aboriginal women and stole their children. Their men were relentlessly tracked down and killed for sport in parties like fox-hunters. The last pure-blood aboriginal died in 1876. (Ref. 5)
2. "Pakeha" was the Maori word for "white settlers".
3. Grattan (Ref. 17) describes the Morioris as "Polynesians", but this may be incorrect. Please see The Pacific: A.D. 801 to 900.

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